

The total cuts of £3,000 in public spending will not be officially announced until January, or possibly even February.—*YES.*

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'Teaching companies' in engineer training plan

by Alan Cane

The Science Research Council, in collaboration with the Department of Industry, is to establish "teaching companies", analogous to "teaching hospitals", to improve the supply of qualified engineers for industry.

It would mean the establishment of a new and independent organization to coordinate and promote the scheme. Its responsibilities would include:

- Receiving and seeking out approaches from companies and universities in which the objectives, the expertise, and the personalities give scope for successful combinations of training and advance in manufacturing practice, to develop a balanced and changing portfolio of programmes.

- Foster good relations with professional institutions, the Engineering Industry Training Board, research associations and other interested bodies.

- Help trainees to find jobs in suitable companies and keep in touch with their subsequent careers.

In an introduction to the report of a working party under Professor L. Mauder of Newcastle University, which developed the idea of teaching companies, Sir Sam Edwards, SRC chairman and Sir Ivann Maddock, chief scientist at the DoI, claim that British manufacturing industry is not getting the qualified engineers it must have to maintain its position in world markets.

They go on to describe the working party's solution: "Selected well-managed and successful manufacturing firms should, in partnership with university and polytechnic departments, become teaching companies."

"In these companies, young

engineers under the supervision of industrial and academic staff would receive training at postgraduate level in the advancement of manufacturing engineering, and would help in the carrying through of advances in a real trading firm. Their practical work in the firm would be complemented by instruction at their university or polytechnic."

"The cost of the programmes would be shared between the Science Research Council, the Department of Industry and the co-operating firms and educational institutions."

Two universities, Salford and the University of Manchester Institute of Science and Technology, are already involved in a pilot project with a Lancashire mechanical engineering company, which is expected to begin early in 1976. Engineering problems the trainees will tackle will include value engineering, foundry production control and quality control.

The working party suggested that a portfolio of programmes should be running in 10 companies by 1978. The cost of the scheme, to be shared between the SRC and the DoI, could exceed £2m by 1980.

The SRC and DoI are anxious to receive comments and queries from those interested in the scheme and these should be addressed either to the SRC at PO Box 18, Swindon SN1 5BW, or the Research Requirements Division, DoI, Abell House, John Islip Street, London SW1P 4LN.

Extra £3m for arts

The University of East Anglia has received an additional gift from the Salisbury family of £500,000 towards the visual arts centre to be built at the university over the next two years.



Mrs Caroline Cox: subversion fear.

Warning of attack by 'new totalitarians'

by Sue Reid

The National Council for Educational Standards is to issue a strongly worded protest to Sir Fred Mulley, Secretary of State for Education and Science, over enforced membership of student unions within higher education. It is demanding that membership of the unions should be made voluntary to allow more freedom of choice among students.

The call to end compulsory union membership, which applies in all but a handful of polytechnics and universities, came at a one-day conference of the council in London last week. Members voted to send a written protest to Mr Mulley expressing their concern over the lack of freedom in higher education and calling on him to change the union membership ruling.

The controversial decision was taken after Mrs Caroline Cox, one of the three authors of *Rape of Reason*, had told the conference, which was considering subversion in higher education, that freedom in polytechnics, universities and schools was under attack.

She and a fellow author of the book, Mr John Marks, said there was an urgent need for a national policy on higher education.

"We would urge the setting up of a national working party, or even a Royal Commission, to consider the formulation and application of a national policy with regard to a bill of rights and responsibilities designed to enshrine and protect basic freedoms", Mrs Cox told the conference.

Mrs Cox claimed that in certain parts of higher education a real attack on freedom was under way, with the assault coming from the new totalitarians of the Far Left. The main attackers of the present day, she said, were the Marxists among students and staff.

She added: "The Far Left has been shrewd and realistic in realizing the enormous significance of the education system both at school, college and university levels. In higher education the ground is especially fertile, for many degree and diploma holders will move into key areas of society where their influence may be devastatingly effective. These are the potential leaders in the media, industry, politics, and the churches, as well as being the teachers and social workers of the future."

Professor Brian Cox, secretary of the council, told the conference that there had been a fall in academic standards since the introduction of comprehensive education in Britain. The chance of working-class children winning a place at university had declined, and this situation was likely to get worse.

In the last few years the lowering standards in the schools had begun to influence universities, Professor Cox said. He revealed that applications for university places were falling drastically in a few key subjects, and named French, German and mathematics as examples.

Moving 'down under'

Dr Timothy Glover, director of the unit of reproductive biology at Liverpool University, has been appointed foundation professor of veterinary anatomy at the University of Queensland from January 1976. Dr Glover will continue his work on the reproductive system and will study aspects of reproduction in species of economic importance.

Higher fees recommendation gets mixed reaction

The National Union of Students has openly condemned the report on university tuition fees published recently by a working party set up by the Committee of Vice-Chancellors and Principals and the University Grants Committee. It criticizes the report for not making a ruling on overseas students' fees, and claims that the recommendation to increase tuition fees generally will cause hardship.

Mr Alastair Stewart, deputy president of the NUS, said: "One can only assume the CVCP is happy with the present system of discrimination against overseas students which the union deplores."

However, the report, which calls for an increase in student fees in line with the rising costs of running universities and tentatively suggests that there may be a case for raising overseas students' fees as well, has been wholeheartedly welcomed by some other quarters.

Dr K. R. Hampson, secretary of the Conservative parliamentary higher education committee, said he was in favour of overseas students' fees being adjusted to a realistic level. It was not the job of the Department of Education and Science to subsidize overseas students. The department's resources should be for the upkeep of standards at the universities which were likely to face the economy axe yet again.

He suggested that poorer overseas students should receive special aid to enable them to enter higher education in Britain, but rejected the theory that Britain benefited when overseas students came to study.

Dr Hampson, who felt that all students' fees should be raised in line with course costs, added that immediate action should be taken concerning overseas students. The report was also welcomed by the Overseas Students Affairs (UK) Committee, which said: "It is refreshing to see that there has been no question of the working party adopting a 'narrow accountant's approach to the existing subsidy to overseas students. It praised the recommendation that adequate hardship arrangements should be continued through 1976-77."

Annan attack on London immobility

Opponents of the scheme to reform the government of London University in the wake of the Murray report were condemning it to "Byzantine immobility". Lord Annan, president of University College, claimed in this month's London University Bulletin.

Referring specifically to Professor John Griffith, of the London School of Economics, who has actively opposed attempts to set up a joint university plan, Lord Annan said that some people thought that what was right for 1925 would be right for eternity.

"I see all sorts of activities, which were very justly the pride of those who worked in the university 50 years ago, as having been overtaken by events: for instance, the existence of the Council for National Academic Awards degrees and the Open University, or even expenditure on the external degrees", Lord Annan said. "How is one to get such matters reviewed?"

He alleged that while Professor Griffith claimed to act for the academic staff against the administrators and for the constituent schools of the university against the central bureaucracy, his rejection of a central planning and coordinating body defeated his own ends.

Lord Annan emphasized how in times of inflation and zero growth, a central body composed of academic staff was necessary to scrutinize priorities and central expenditure.

There is no practical alternative to the "peer review" method of allocating funds for scientific research, according to Professor Edward Shils, of Peterhouse, Cambridge.

In an editorial in the latest issue of *Mind*, he says the existing system is "criticized". Scientists whose proposals have been rejected frequently claim that the assessors are linked with those universities which appear to benefit most.

He rejects, however, using politicians or civil servants in place of practising scientists, if decisions are to continue to be based on scientific merit.

"The only alternative to peer review, in the competent assessment of proposals for scientific research submitted in search of financial support would be the same thing by another name", he says. "Scientists are irascible. If science policy is not to be completely nonsensical or just another way of distributing the spoils of office to favourites and protégés."

French with A-level tears

Results attained by students in French A level are not necessarily an accurate guide to subsequent university performance in the subject, Professor Arnel Diverres, of the University College of Swansea, has maintained.

Giving an inaugural lecture entitled "French at University", Professor Diverres claimed one of the main problems facing universities was the great disparity in the linguistic attainment of students on admission.

A-level results were not an accurate guide to performance because there was often no correlation between the standard reached in language and literary studies.

Universities, added Professor Diverres, were only told the overall mark each student attained in their A-level French examination.

He revealed that a first step towards solving this problem had been taken in Scotland.

A group of university teachers of French from Scottish universities had held a series of unofficial discussions with a group of secondary school teachers to decide what points of French grammar pupils could be expected to attain.

A list was drawn up and submitted to official bodies for their views, said Professor Diverres. However, he added, there were dangers in this approach because while the list was intended to outline the minimum standard in the minds of some teachers this had a habit of becoming a maximum.

But, said Professor Diverres, a satisfactory answer could never be found. The best way was to have a list of their salary claim by the Government this year. Leeds University calls for an independent review body for salaries, and Strathclyde argues that grievances over pay should be referred to the Ombudsman.

Some branches are angry at their executive committee's handling of the matter-Salford University calls its action "inept". Several branches criticize Dr Robert Thomas of Newcastle University, president of the AUT, for his conduct of meetings.

Salaries are the subject of the majority of the motions to be presented to the council meeting. Imperial College says the long-term aim of the AUT should be to get a career structure permanently linked to the appropriate grades of the Civil Service. Several

Harder work—but there's a limit

Like every other institution and individual in society, the universities are going to have to work harder over the next few years, Sir Arthur Hughes, chairman of the Committee of Vice-Chancellors and Principals, warned last week.

Introducing the CVCP document "University in a period of economic crisis", which has been handed to the Government, Sir Hughes argued that university staff had worked harder over the past year. To continue their effort in making economies, the Government had to recognise there was a limit

New mixed colleges at Oxbridge may bear brunt of Sex Discrimination Act

by Sue Reid

Single-sex colleges at Oxford and Cambridge may escape the full brunt of the Sex Discrimination Act when it comes into force at the end of the year. Under the new law they will not have to become co-educational, and their age-old statutes are likely to give protection from the Act's rulings on employment of staff.

Copies of the Act have already been circulated at both the universities. At Cambridge, Mr Bob Hepple, a Fellow of Clare College and an expert in law, has prepared a special report on the implications of the new Act for the university's committee of colleges. It will be considered by the committee early next year.

A similar committee at Oxford is now seeking counsel's opinion on the Act and its expected influence on the university's colleges.

While allowing the single-sex colleges to continue, the Act is likely to bring pressure to bear on Oxbridge colleges which are in the process of becoming mixed institutions.

These colleges may apply for a traditional exemption order, which will, for example, allow all-male colleges already moving towards complete coeducation to spread the process over an agreed period.

But the main provisions of the Act, dealing with employment, will apply to the colleges, most of which employ either male or female staff. It will be unlawful to discriminate against a woman lecturer at the advertisement, appointment or promotion stage on the ground of her sex rather than her qualifications.

The same ruling will apply to the female colleges regarding the appointment of men.

But some Oxbridge single-sex colleges are now considering schemes



"Of course, changing our statutes to allow female fellows will be a complicated and long-drawn-out operation—have you considered changing your sex?"

which will allow them to continue as normal without breaking the new law.

At the discussion stage of the Bill it was feared that an all-male college, for instance, might be precluded from refusing a fellowship to a well-qualified female applicant, or vice versa. The Act does not require either male or female staff, but some colleges have sought legal advice and taken the matter up with the Home Office, the Department of Employment, and the Department of Education and Science.

At Somerville College, Oxford, where all the fellows are female, the matter has been raised for the present. The college has taken legal advice, and has been told that it can

continue to appoint female fellows only.

It plans to advertise fellowships without any reference to sex, then refer applicants to the statutes of the college which make the firm of fellows only ruling. Other Oxbridge colleges are likely to avoid similar courses of action to avoid breaking the law.

Some colleges have already altered their statutes to permit the appointment of fellows of either sex. Balliol College, Oxford, now has three female fellows and New College, Oxford, has one.

But while some Oxbridge colleges have gone a little way towards pre-empting themselves for the possible implications of the new Act, others seem to be ignoring both the Act and its possible implications.

Academics in favour of a complete change to mixed-sex colleges are critical of the attitude of the authorities at both Oxford and Cambridge.

The handful of colleges already in the process of taking in students of both sexes may be the hardest hit by the Sex Discrimination Act. They are likely to face spreading the change from single-sex to mixed-sex over a long period, and it will be up to them to apply for a special transition order and negotiate a "time-lag" with the sex discrimination "watchdog", the Equal Opportunities Commission, which will be in full operation by January.

Whatever the outcome of the new Act and its influence on the Oxbridge colleges, it will allow would-be students and academics to take actions through the courts, through an industrial tribunal, if they think there had been unfair treatment by the colleges on the grounds of sex. There will, say the legal experts, almost certainly be a test case in the near future, and this may well banish any lurid tales of Oxford and Cambridge universities.

Churning out square pegs for round holes, says Heath

by Frances Gibb

The British system of education still reflects the priorities of round holes, Mr Edward Heath, MP, told the Federation of Conservative Students' conference in Edinburgh last week.

It was failing to produce the kind of people that our industry needs to survive. "Although the sun has set on the British Empire, we still seem to be producing a stream of administrators to govern the colonies which no longer exist", he said.

Fewer than one graduate in four goes into industry and less than one in 10 enters commerce, he said. Yet it was estimated that between 1966 and the early 1970s the working population with a degree will nearly double, from 750,000 to almost 1,500,000.

Science places in universities and colleges remain unfilled, he said. "With thousands of round holes waiting to be filled in science and technology, our universities and schools are busily churning out countless square pegs."

But Britain's livelihood depended on industry and commerce, more than ever. Private enterprise provides more than 70 per cent of the country's employment, and sells more than 90 per cent of British exports.

Educationalists had to learn about the needs of industry and industry had to sell itself to students if it was to survive, he warned. Leaders in education and industry had to break down the mutual suspicion that still persisted between them. "For too long they have glared at each other, teeth bared. They must now get together more often."

Mr Heath also urged a dramatic improvement in careers guidance in schools, colleges and universities, and an extension of vocational education so that there was a greater link between what pupils were taught at school and the jobs into which they were going. This was what industry and employers and many young people wanted, he said.

That raised the question of the curriculum taught in schools and colleges. The biggest mistake would be to sweep the matter under the carpet. "Should we not at least be debating whether we are satisfied with the curricula taught and are we still satisfied with previous decisions on who is to be responsible to a say over the curricula?"

Some degree of specialisation within schools should be possible, to enable pupils to follow their interests whether academic or vocational, he added.

Colleges launch attack on regional advisory councils

Proposals by the Council of Local Education Authorities to set up Further Education Advisory Councils in the Regions (FEACRs) are inadequate and should not be implemented. This is stated by the Association of Colleges for Further and Higher Education and the Association of Principals of Colleges in their comments on the proposals to the Department of Education and Science.

But they do suggest that a national forum should be set up for considering policy regarding the whole organization and development of higher and further education. At present this is considered in a piecemeal way, they say.

The DES question on whether a national council should be set up to oversee the regional bodies is putting the cart before the horse, however. The creation of regional councils would not necessarily cross the need for a national body; the question is whether or not the existence of a national body would create the need for regional bodies.

Regional advisory committees should continue with their present responsibilities, the associations say. The CLEA proposals do not make a convincing case for significant changes based on regional machinery or suggest ways of overcoming present deficiencies.

One objection is that CLEA does not recognize that full-time higher education is a national rather than a regional matter, and that in providing for it the regional advisory councils have no realistic part to play.

Together with the Association of Teachers in Technical Institutions, the associations say that like the present regional advisory committees, the proposed FEACRs are not representative enough, and outside bodies should have larger representation. They propose one-third representation from the local authority, one-third from the teaching profession, and one-third from outside interests such as industry and commerce.

The Committee of Vice-Chancellors and Principals in their evidence to the DES on the CLEA proposals, urge this week that the interim regional coordinating committees on teacher training should be set up as soon as possible.

"The committee attaches very great importance to the early establishment of the RCCT in order to coordinate the activities of all concerned, in both the university and non-university sectors, as free-standing bodies reflecting the uniqueness of arrangements for the education, training and professional induction of teachers."

But any move to set up the regional bodies while discussions on devolution and local government finance were going on would be wrong, they say. They urge that no decisions be taken without full discussion of the problems involved.

Next week's THES

Next week's issue of *The Times Higher Education Supplement* will be available from newsagents on December 24.

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David Walker finalizes his hypothetical pecking order of English universities

Old familiars stay at the top

However controversial the idea of a pecking order of universities might be, it cannot be denied that some institutions come out near the top of every scale that is used, from students in residence to engineering research, medical teaching, library books, staff honours and A-level grades.

Using the kind of grading schemes described in last week's article, *THE TIMES* has arrived at a list of top English universities. The measures are too imprecise to allow it to be called a top ten; better call it a top seven with a further seven or eight universities just beneath it in the rank order.

The list would start with a group including Manchester, Leeds, Oxford, Cambridge, Birmingham, Nottingham and London University taken as a whole. The next group would have Liverpool, Sussex, Sheffield, Bristol then Reading, Southampton and Essex before our admittedly arbitrary, cut-off point.

Such a list contains few surprises to those well versed in academic chit-chat. To some people it will smack of discrimination which contravenes the block grant principle on which the modern British university system rests.

But if the idea of a pecking order is discriminatory, it is no more so than a reflection of the kind of subjective judgment that academics make in appointments and distribution of research grants. In the great study of academics by A. H. Halsey and Martin Trow, such a pecking order was found in academics' preferences: most of them would swap a professorship at a provincial university for a lesser post at Oxford, and so on down the line.

More importantly, the discrimination is becoming overt, as in the speech by Dr Brockle Hunter of Birmingham University and in hints and off-the-record words from politicians of both parties.

The list we have spatchcocked together can with some interest be compared with the picture of British universities that emerges from this week's document from the Committee of Vice-Chancellors and Principals entitled *Universities in a Period of Economic Crisis*. The document was addressed to Mr Mulley, Secretary for Education, and described in glowing terms the aspects of university work that make them such a good bargain.

It singled out medicine, engineering and agriculture as areas of vital importance to the country, well-being and mentioned more than once the universities' function in teaching future doctors and engineers and doing research in these subjects. Other subjects specifically mentioned were veterinary science, law and social work.

Sir Arthur Arncliffe, chairman of the CVP, denied at a press conference last week there was any special significance in singling out these subjects. He said their selection reflected the conceptions of men of his generation of what the universities were all about. Nevertheless they also give a useful picture of what the CVP considered the universities' strengths, and our list ought accordingly to reflect this.

Take medicine, and an aggregate measure of teaching and research strength in clinical and pre-clinical medicine and dentistry. The source for these figures are the UGC returns of 1971-72 and so all the qualifications attached to the UGC statistics apply here. However, the UGC figures for medicine do give a useful check through their enumeration of grants to departments from hospital boards, which is a measure of esteem if nothing else.

The table that results includes London, Oxford, Cambridge, Bristol, Newcastle, Manchester, Nottingham, Leeds, Birmingham, Liverpool and Sheffield, the flower of the British provincial universities with long history of involvement with the local community and its health.

London, of course, has to be divided into its constituent parts, many of which have different traditions, and which do naturally vary in their quality. Nevertheless men like Sir Douglas Logan, London's recently retired principal, can testify that the medical schools at places like St. Mary's, the London Hospital and the Middlesex do form a community of sorts. He spent many hours of administrative effort in the 1940s and 1950s in getting men from Bart's and Guy's merely to talk to each other.

In agriculture and forestry few universities in England offer the subject out of research. This poses the problem that any pecking order will tend to reward the big battalions at the expense of those smaller universities with specialist interests.

However, there are few subjects which exist in such isolation. In agriculture the top universities are Reading, Nottingham, Newcastle then London, Exeter and Oxford. Reading does well on a number of other indicators; Newcastle is strong in medicine, and so on.

In engineering the dominance of the big universities is matched by the apparent excellence of the research tradition at smaller places like Essex and Sussex. "Excellent" in that sense must of course be a quantitative concept and quality being used come from one year alone and so do not give a picture through time.

Taken together the universities "best" in engineering and agriculture together include Newcastle, Oxford, Nottingham, Cambridge, Birmingham, Manchester, Liverpool, London, Reading, and Warwick. The figures available from the UGC for Manchester pose similar kinds of problems as those for London.

How justified is it to treat Manchester University and the University of Manchester Institute of Science and Technology as a single institution? Their interwoven history and shared facilities do provide some economies of scale, but they have different principals. It is probably true that in the final reckoning Manchester University would only be a few places behind the joint institution of "Manchester with UMIST".

The list of top universities in mathematics and the physical and biological sciences has a predictable shape. It includes Bristol, Leeds, Southampton, Liverpool, Manches-

ter, Sussex, Cambridge, Birmingham, Oxford and London, with a fringe of strong mathematics departments at Warwick and Keele and physical science at Reading and Salford.

Some new names appear in the list of universities strong in the social studies and architecture. In the UGC's statistics "social studies" covers an array of subjects including accountancy, law and social work.

In social studies universities such as York and Brunel, Hull and Essex are strong; in architecture Sheffield, Bath and Bristol. The real strengths, however, are concentrated in the big universities of Oxford, London and the major civics.

Two additional measures are post-graduate numbers of libraries. Universities can be ranked in terms of the proportion of their students who are postgraduates and in terms of the proportion of total English postgraduate students they have. Likewise on libraries a volume measure—the number of bound volumes—can be linked with library spending divided among the total student numbers and the academic staff.

It is noticeable that the latter measure shows the new universities up well: in 1971-72 large amounts were spent at Lancaster, East Anglia, Essex and Warwick on books, although the total number of books was understandably smaller than elsewhere.

One of the striking things about the final aggregate ranking of universities is its domination by the four big civics—Manchester, Leeds, Birmingham and Liverpool. Perhaps Dr Hunter, vice-chancellor of Birmingham, should have added to them, in his stout defence of the civics during the summer, Nottingham, Sheffield, Southampton and Bristol.

But Dr Hunter's main point is seemingly borne out. The civic universities carry a significant amount of the country's applied and pure research with a massive basis in teaching of both undergraduates and postgraduates.

Beyond this, it is possible to say that the "new university" experiment has been at least partly successful, although perhaps not in the way originally intended by the UGC planners of the later 1950s. A university like Sussex takes its place in the top 10 because of its teaching and research in traditional applied and pure science and engineering.

At the end of the exercise, Oxford and London remain. It ought to be emphasized that the schools of London University differ markedly and that aggregating them conceals a great deal: comparing the London School of Economics with Imperial College is easier only than comparing University College with King's.

Nevertheless, a picture emerges of London as a great academic investment which if only in its sheer size, let alone its high quality of many aspects of its work, continues to pre-empt significant proportion of the money available for higher education in Britain.

The list shows that academics' high subjective valuation of Oxford bridge as an environment for teaching and research is borne out. The only outlier seems to be on those who consider they should not get sufficient resources to keep them at the top of the perch.



Can Brunel Willy be foiled by science?

Keeping things safe in universities these days is a major problem. Students going to lectures and using libraries or laboratories bring coats, bags and other personal belongings with them which they leave in cloakrooms or simply throw on the floor. Easy pickings for thieves who have little difficulty in losing themselves in the shifting population of a university. There is no doubt that a lot of pinching goes on. But who is doing it?

Can it be those earnest students discussing the embodiment of President Kim Il Sung's idea (what ever that may be) in the framework of Korean Revolution? They would not be so materialistic.

Could it be those aged lecturers, brooding over their lost differentials, as they shuffle between lecture centres and offices? Their motive there, it cannot be denied! But they lack the sleight of hand.

No, it must be the work of a dedicated professional, some individual—let us call him Brunel Willy—skilled in every branch of felony. His designs are there. Indeed, one can tell up to a certain point the picture of Brunel Willy, his likes and dislikes, from the things he steals.

To start with he is a teaspoon fetishist of world stature: 6,000 teaspoons (on average) removed from the university refectory every term since 1967.

As university librarian, moreover, I can certify that Brunel Willy has an abiding love of books, with a catholicity of taste in reading which is wholly admirable; although it is true, that one detects a preference for books on psychology. (Perhaps he has problems.)

He likes egg and tomato sandwiches (one packet stolen from a female student's coat pocket on February 4). He has at least two typewriters (taken from mathematics building last January), probably for typing out his "shopping list".

Obviously a person so conscientiously professional must live close to his work.

He must surely occupy a large house not 10 minutes' drive from the campus, standing in its own grounds and discreetly shrouded by shrubs.

In fact one pictures him at home in one of those gracious residences for which Gervase Cross (just down the A40) is rightly known. Perhaps he will be wearing his French parlour maid's outfit when he enters the Hall of Residence on April 7, 1974, as he checks over his latest additions to his teaspoon collection.

Especially grievous to the university librarian are Brunel Willy's activities in the library cloakroom. The library rules prevent readers from bringing briefcases into the library in case they should absent-mindedly walk off with a load of books inside. It is extremely distressing therefore, if a reader, who has left his bag in the cloakroom, finds it gone when he comes to collect it. Most cloakrooms are expensive and lockers with keys are a nuisance because the keys tend to disappear.

But Professor Alan Talbot, Head of the mathematics department and a member of Brunel's library committee has come up with a solution which is helping the librarian out of his difficulty and seems likely to have applications in other contexts.

He pointed out that while the library was open, its main issue desk was always manned. Could there not be lockers in the cloakroom controlled electrically by the issue desk? No keys would then be necessary.

Mr G. Ford of the electronics construction unit in the department of electrical engineering developed a control system for the lockers, using magnetic tokens and timing devices. Patents have been taken out and the first installation has been completed by a firm in Cambridge.

Readers requiring lockers simply go to the issue desk, where they are given numbered tokens, which look like ball-point pens. Ten seconds later the door of the appropriate locker opens in the cloakroom, the reader places his or her bag or coat inside, then 15 seconds after the door has opened the lock becomes live again, the door is shut and the locker is locked.

On leaving the library the reader returns the numbered token to the issue desk. As soon as it is replaced the locker is again unlocked and the door opens.

Woe betide the over-eager student who rushes to the locker in less than 10 seconds and is too impatient to wait. In the time it takes him to return to the issue desk to collect the token the door is still locked, and he has to wait for the next token.

Indeed he has opened and locked himself once more automatically in object lesson in self-discipline.

prophecy.

Nick Childs

The author is librarian at Brunel University.

David Walker on the background to the university teachers' pay settlement

Already looking for next notch on salaries ratchet

University teachers have at last got their £6-a-week cost-of-living increase but only after a year of stalled negotiations and picketing that has left many members of the Association of University Teachers angry at the Government's handling of their claim.

Not all academics are disconcerted. Some have had their salaries increased by nearly £1,800 in the space of 11 months. Professor Bernard Crick, of Birkbeck College, London, told the world on BBC Radio last week that he was "aggressively satisfied" with his standard of living.

Nevertheless 1975 will be looked upon by many as the year when lecturers' salaries were not increased. It was awarded major salary increases that took them unjustifiably ahead of the university teachers and when, once again, they fell foul of the Government's pay policies.

The salaries academics are now paid start at £3,178 for a lecturer, rising through 15 points to £6,446. A senior lecturer or reader starts at £7,242, rising to a maximum of £7,492, and a professor starts at £7,897. According to the AUT all this is only a temporary respite from the way to achieving parity with civil servants in future.

These sums are the final result of negotiations which started late in 1974, when the AUT submitted to the Universities Authorities Panel a set of salary scales which started at £2,859. The panel, which represents the vice-chancellors, rejected the AUT's claim which was known as Committee A, in a two-tiered system of negotiation which many academics now blame for the tardiness in settling their claim.

At the bi-annual council meeting of the AUT in Swansea, which began today, there is likely to be much pressure from delegates to apply to the Advisory Conciliation and Arbitration Service for a way out of the present negotiating strategy.

The interesting thing about last year's submission to the UAP was that it made no mention of further education teachers as a group with comparable salaries. The omission is all the more remarkable because

since last Christmas, when the report of the Committee of Inquiry into the pay of non-university teachers, the Houghton Report, was published, the money paid to polytechnic lecturers has been uppermost in the minds of the AUT's negotiators.

The groups mentioned by the AUT in their 1974 submission were civil servants and other administrators. It pinpointed the scientific officers in the Civil Service who could enter with a salary nearly £500 more than the starting salary for academics with similar qualifications.

Then came Houghton which gave further education teachers the salary scales listed in the table: its recommendations were backdated to the beginning of May, 1974, a fact which increased the university teachers' sense of relative deprivation when they discovered polytechnic lecturers, often their former students, getting more money.

The AUT pointed out that such a salary disparity was without any justification when universities actually validated some of the work done in polytechnics through external degrees and the subject committees of the Council of National Academic Awards are stocked with done.

The principal reason for the Houghton Report and accepted by the Government was one of comparison between the two sectors. In paragraph 162 it said: "The advanced work undertaken outside university is increasing and we feel strongly that the teaching work in universities should be a matter of principle be paid broadly comparable rates to their university counterparts and have broadly similar career prospects".

In the early part of 1975 the AUT pressed on with the support of the vice-chancellors for its salary claim, which averaged about 18 per cent across the various grades.

In April, Mr Prentice, the Secretary for Education, said in the House of Commons that he accepted the Houghton Report's principle of "parity" between the sectors, a word which according to Mr Laurie Sapper, general secretary of the professional teachers' union, was "a semantic dispute between the AUT

and the Government is still going on.

The month of May saw the first over direct action by university teachers when, across the country, they broke off lecturing for an hour or so at lunchtime to hold protest meetings. Mr Prentice condemned the episode as "irrelevant and unhelpful". However, because negotiations between the teachers, the UAP and the DES were dragging on, the dispute was referred to arbitration.

The AUT claimed a notional figure which represented what their salaries should have been in October 1, 1974, plus a settlement for the year since then. Together these elements, which make up the claim in the table, would have given a new lecturer £3,516 and a professorial minimum of £9,495. These figures represent the AUT's own estimate of price and wage movements between 1974-75 plus what they actually got from arbitration.

The findings of the arbitration body got caught up with the Government's new anti-inflation strategy announced in the July White Paper *The Attack on Inflation*. The report, which included a recommendation that university teachers' salaries be frozen for 1975, on points about 10 per cent above those applying for further education lecturers. However the DES and AUT have drawn contracts for 1975-76.

The document said: "With effect from April 1, 1975, within the rules of the Social Contract then operating, teachers in further education in England and Wales received in-

decently expected 20 per cent cost of living to be added to them.

What became known as Part One element would have raised the starting salary to over £3,500, restoring to a generous margin the salary lead that some university teachers claim they should have.

However, the Government took the view that this cost of living element fell under its pay policy and would have to be restricted to 25 a week at most. Subsequent negotiations between August and last week concerned whether in fact the cost of living element was agreed before the pay code came into effect, and whether if it was, the DES would be obliged to pay it. On the AUT's interpretation it committed the DES to accepting in any future negotiation the salary lead they claim they have over further education teachers.

Meanwhile, the further education teachers are looking to the small but none the less appreciable advantage that university teachers now have, as a possible bargaining counter in their next negotiations, probably next April. In a recent edition of *The Technical Journal* the Association of Teachers in Technical Institutions said the Houghton relative in the negotiations.

For claim is very likely to be used on Civil Service comparisons. The salaries ratchet climbs one notch higher.

	Pay at October 1974	FE	Claim	Pay at October 1975	FE
	Unit		"Part one plus Full" Cost of Living	Unit	
University lecturer	min 2,118	2,670	3,516	3,174	3,279
Polytechnic lecturer II/ senior lecturer	2,247 2,412 to			3,378 3,582 3,786	
University senior lecturer	max 4,896	5,412	7,659	6,446	6,417
Polytechnic principal lecturer	min 4,707	5,001	7,392	6,234 6,446 6,662 to	5,940
Professor	max 5,976	6,423	9,300	7,742	7,578
Head of Department	min 6,105	6,831	9,495	7,897	8,037
Grade VI	ave 7,257		11,247	9,280*	

* the professional average is subject to the £8,500 limit for cost of living increase

* the professional average is subject to the £8,500 limit for cost of living increase.

Sue Reid reports on how changes in Leeds University's system of government are working

Almost share and share alike after Leeds changes

Rumblings of discontent among junior academics more than a decade ago have led today to sweeping changes in Leeds University's government structure. The university has been reorganised so that non-professional staff and students share in the decision making.

The old constitution, introduced in 1965, was becoming outdated by the 1960s. The junior members of the academic staff first voiced this view and the student body took up the same cry.

With no students and only a handful of the non-professional staff on the university senate the staff for power sharing could not be ignored. Long drawn out debates eventually led to a new constitution in 1974—the university's centenary year—when a new constitution was introduced.

Among the more dramatic changes brought about by the new constitution has been the increase in student representation on both the university senate and council. The revised statutes allow nine students to sit on the council and seven on the senate with the president of the student union automatically gaining membership of both.

The move, along with a decision to allow student representation on the more important senate committees, was made after long discussions between the university authorities and the students themselves. Now, years when he became the vice-chancellor in 1970 and many academics love more control of their own university, the move has been generally applauded.

The constitutional changes have, on the surface, been equally bene-

ficial, for the non-professional staff who, like the students, are elected to senate membership.

The statutes now allow 45 members to the senate, 12 of whom are elected directly to senate and a further 12 to the university council. Only a handful of non-professional staff were eligible for membership of these bodies under the old constitution.

For the university professors the picture is, inevitably, not so rosy. Many no longer enjoy automatic membership of senate but instead have to compete in university elections for a seat against their non-professional counterparts.

But fate has played a hand in this situation much to the surprise of the university's young blood. By chance it has been the professors who have proved to be the election favourites, pushing their non-professional counterparts into second place.

On the university court and council have also come representatives of neighbouring Yorkshire universities and Leeds, Huddersfield and Leeds polytechnics. Two representatives of the Trades Union Congress now sit on the university council, a move welcomed by the student body.

The introduction of reserved areas of business at meetings has taken the heat out of any arguments against student participation. This move, approved by the students themselves, allows discussion on staff appointments, promotion and personal affairs to be held in the absence of the student representatives.

While some members of the academic staff and student body voice minor criticisms about the new government structure, in practice now for 15 months, Lord Boyle, vice-chancellor of Leeds University, is outspoken in his approval.

The long debate over the constitution had been going on for five years when he became the vice-chancellor in 1970 and many academics feel it was largely through his enthusiasm that the various issues were finally thrashed out and the new statutes brought

into being.

Lord Boyle says that bringing in a new constitution at an old-established university, such as Leeds, is like the starting of two major motorways. He sees the new constitution as an important step forward for the university and admits to feeling "rather smug" about its success.

However, he is quick to add that not everything has worked out perfectly. "It is possible we have a few too many committees. But I believe that we have managed to get 85 per cent of the new constitution right first time. It has worked extraordinarily smoothly."

Lord Boyle is particularly pleased about the element of student participation, which he believes is of great benefit to the students and the university. "It cannot be anything wrong with the students involving themselves in the university government."

"It is a thoroughly good thing for students, especially those who are not going into professional life at the end of their time at university. Students leave Leeds feeling

more respect for their university because they have been truly involved with it."

He welcomes the polytechnic representation on the university court and council, although he admits that those eligible to attend are often too busy to put in regular appearances. But links between the university and other education institutions in Yorkshire are, says Lord Boyle, very important.

Professor Charles Whewell, a pro vice-chancellor of the university between 1973 and 1975, has seen the old constitution and the new constitution at work. He believes that the most important element of the changes has been the increased involvement of both the academic staff and students.

"The senate is now a much more representative body. People don't see their position on it as a sounding board for their own sectarian interests. Both staff and students make useful contributions."

He is the first to admit that 10 years was an extremely long time to reach agreement on a new constitution. "It should and could have

taken less time but it was essential that there was thorough discussion. It was the consequence of the way certain topics arose and, of course, we did have a change in vice-chancellor during that time."

Professor Whewell remembers that the first demands for a new constitution came from the non-professional staff who felt that the professors had no automatic right to sit on the senate.

In spite of the initial strength of the student call for representation in the early 1970s the situation is sadly different now. Some students elected to the senate have only made odd appearances—a major complaint of the students' union.

The constitution allows the union to elect one of its members and its president to the senate. The five other student members of senate are elected by the faculties and are in no way controlled by the union or its policy.

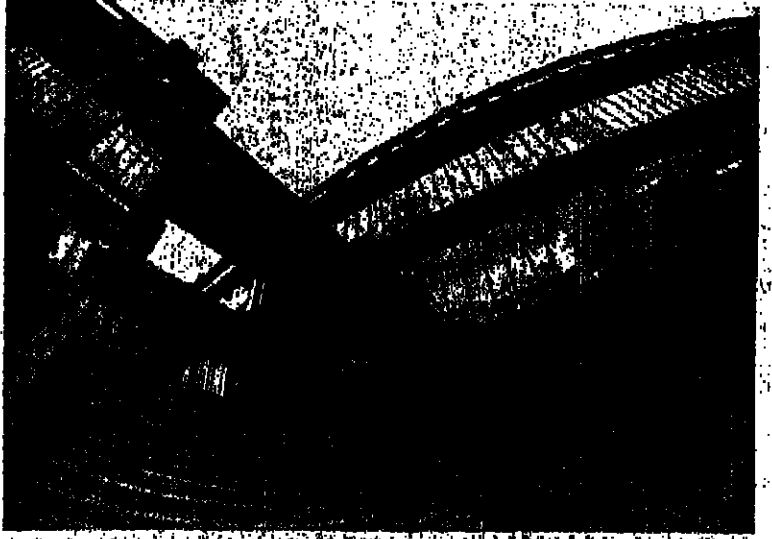
Mr Rob Rao, deputy president of the union, said: "Our major grievance is that the students as a whole have no control over their elected representatives in terms of being able to recall them."

He and other members of the union feel that arising students, including those elected from the faculties, should be subject to a vote of no confidence if they do not attend to their duties. They also criticise the low number of students actually allowed to play a part in the university government.

Mr Rao explained: "The ratio of students to academics on the senate is still too low. The power given to students under the new constitution has only been a token gesture."

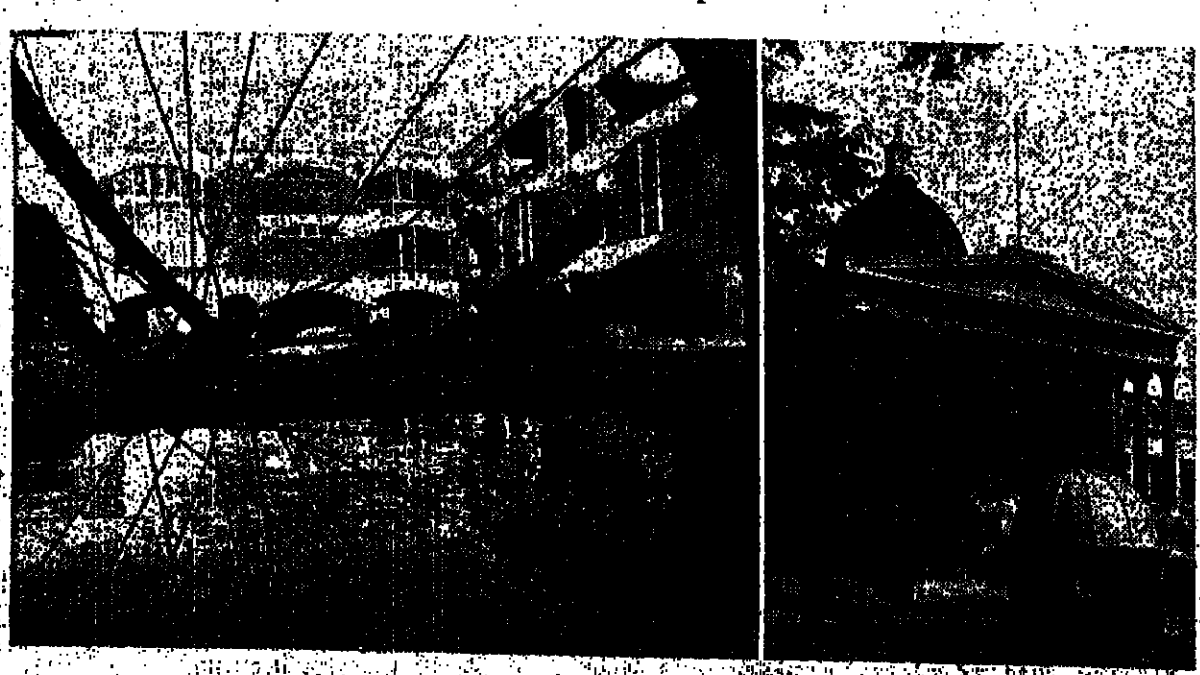
Criticism of the working of the new constitution has also been voiced by the non-professional staff who still feel that they are under-represented.

Mr Edgar Jenkins, secretary of the Association of University Teachers at Leeds, said: "It is not enough of the non-professional staff exercised their voting rights and consequently the well-known professors safely held their senate seats at elections."



New views introduced at Leeds University.

Both Sussex and London universities find room at the top.



New views introduced at Leeds University.

Long-term planning needed to maintain standards

At this time last year, the committee told the Secretary of State for Education and Science that in times of great economic difficulty the universities willingly accepted that they must bear their fair share of cuts in public expenditure, and the committee reaffirms that view now.

The committee made its concern known to the Secretary of State because by that time it had become clear that the means adopted in December, 1973, to bring about cuts in universities' expenditure (the withholding of supplementation) were placing a disproportionate burden upon them. It was in recognition of this that the Secretary of State made available a supplementary grant of £15m. Despite this welcome relief universities had no alternative but to make extensive expenditure cuts of an order which cannot be repeated and it is from this weakened financial base, and without any planning framework for future operations, that they face a situation in which they are making every effort to meet their inescapable commitments as well as the accelerating demand for university entry from well-qualified students.

Universities have expanded to meet student demand and will wish to continue to do so but the importance of their work cannot be judged simply in quantitative terms. What can be done in meeting student demand or in other aspects of the universities' activities depends ultimately on the amount and quality of physical and staff resources.

A commitment to high standards means all those based on the need to define and distinguish the universities' role—teaching which inspires, research and its application which expands present boundaries of knowledge and understanding, and scholarship achieved by the work of men and women of considerable intellectual powers. It is vital that universities should continue to be able to maintain a proper balance between these separate but interacting functions.

The committee is confident that any examination of the record of the universities would leave no doubt that they have always reacted and will continue to react positively to the challenge of the problems which face the nation. Support was immediately forthcoming from within the universities for the increased opportunities for higher education proposed by the Robbins Committee and accepted as Government policy. That support was maintained by members of the university community despite the problems the expansion itself created. By the academic year 1971/72, universities had admitted some 6 per cent or 12,500 more students than Government recurrent grants provided for in that year.

In recent years, and with the assistance of the University Grants Committee, universities have taken the measures necessary to meet the need demonstrated in a series of national reports for greater numbers of highly trained men and women in particular fields where science and technology—for example, petroleum engineering—quite apart from expanding the numbers of their medical, dentistry and veterinary graduates to meet national needs, also in such areas as the law and social work; 135,000, well over 50 per cent of universities' students, are on science and technology-based courses.

The universities have also devoted special efforts to encourage recruitment, in order to maintain the resources they allocated to fields such as materials science, where student demand had fallen temporarily, but where future national need was clearly indicated. This has been amply justified.

In the last 18 months, because of accelerating inflation, universities have had to work with reduced resources in real terms. In this period, they have maintained their important commitments in teaching and research, but they also continued to increase their student numbers, by 7,000 in 1974, and a further 10,000 this year. This achievement has involved a programme of rigorous economies: established posts have had to be left vacant—some 500 in academic staff posts alone by the beginning of this year; maintenance has had to be deferred on a large scale; and there have been increasing pressures on the ratio of academic staff to full-time equivalent students which, outside of the medical subjects, now stands virtually at 1:10. In the same period universities have sustained the programme to

In a recent statement the Committee of Vice-Chancellors and Principals urged the Government to restore long-term financial planning and rectify the 'injustice' done to university teachers over their salary claim. Extracts are printed below.

expand the number of doctors they train in their medical schools. This effort is of vital importance to the future of the National Health Service in meeting its undoubted need for doctors and is one which makes an enormously valuable contribution to its current financing through the services which university-trained staff give to NHS hospital practice.

At a time of financial restraint, however, this work is being achieved at the expense of other commitments, as medicine with its costly staffing and other demands comes to consume an increasing percentage of the budget of these universities with medical schools.

There are realities in the universities' present situation which cannot be ignored in a search for further economies in the use of resources. The importance of the work of universities is such that many commitments entered into are necessarily long term in character. The introduction of a new first-degree course from the initial planning to the graduation of the first student requires a period of at least five years' work; even if it were decided now to establish a new medical school it would not produce the first qualified doctor until well into the 1980s.

"Cuts in resources are limited by the minimum standards universities must demand"

In a wider sense, a research programme of potential national importance, first funded from outside the university, may have to be taken over by the university and supported for some years if the national investment is not to be wasted.

In a situation of economic crisis, attention is inevitably focused on short-term responses, but the long-term nature of many university activities is peculiarly unsuited to such short-term measures. In order to make the best use of the resources available for higher education, universities must have a reasonable planning perspective and certainly one longer than that applying at present where decisions giving rise to long-term commitments are having to be made in ignorance of the resources that will be available to meet them.

The need for an adequate planning period is all the more crucial in a climate of financial restraint if universities are to make sensible use of their resources. They must attempt to minimize the harmful effects of economy financing. Moreover, it cannot be said too often or too strongly that adherence to certain minimum standards which our own any comparable university system demands, enforces limits on the extent to which resources may be indefinitely stretched.

The fact that in the case of higher education these limits are not necessarily obvious, does not make them the less real. Standards established over a period of many years can easily be lost but not so easily regained.

A number of other important practical considerations circumscribe the flexibility of universities in redeploying their resources in the short term. The importance of academic staff salaries accounts for almost half of all university income and to this must be added the salaries of other staff which produce a figure equal to nearly three-quarters of the total annual operating costs. The importance of the fact that universities employ over 95,000 people of whom 31,000 are academic staff.

Yet tenure of employment has rightly become the norm for university academic staff—just as it has for most other teachers and civil servants. And since academic staff enjoy tenure, universities would reject as untenable the concentration of any redundancies on other groups of their staff. Because of this, in practical terms, such staff savings as may at any one point in time be possible could only be achieved through redeployment, where this is feasible, and redistribution of staff resources as posts become vacant through resignation, retirement or death.

Despite the Government's special emergency grant, operating deficits for the year 1974/75 would have been unmanageable if universities had not made a vigorous pruning of both staff and non-staff expenditure. The economies in non-staff expenditure included cutbacks on spending on libraries, on supplies and materials needed for teaching, and on fuel, power and maintenance.

Moreover, the opportunity to freeze academic posts is, as already mentioned, limited by the necessity to fill posts essential to the work of the university. And since university teachers are expert in particular fields of knowledge, the opportunity for transfer between departments is limited. Nevertheless, the overall numbers of university teaching staff have not risen since 1974, though student numbers have risen by over 10,000 this October and are expected to increase by a similar amount next year.

There are already subject areas in universities, particularly in some arts and social science subjects, where the staff-student ratio is 1:15 or worse. And the worsening of academic staff ratios has been paralleled by corresponding cuts in the number of non-academic staff. As mentioned above, the current average university figure excluding medical subjects now stands at 1:10, a ratio worse than that applying in other sectors of further and higher education.

If such departmental ratios endure for long, or worsen, efficiency can fall and the personal teaching method, essential to the success of the intensive British degree course, will no longer be possible; nor will there be any guarantee that the present high student success rate can be sustained. We believe that the universities are already in a situation where, if they were required to maintain the present level of economies, lasting damage would be done.

There is another aspect of the problem. The university system in the United Kingdom over the course of the past two decades has been the subject of large-scale capital investment. New universities have been founded and others redeveloped. The nation has invested very large sums in teaching buildings, laboratories, libraries and other facilities which will be needed more and more in the years ahead. Many of these buildings are used for services to the local community offered by universities: adult education and the extra-mural departments, the established by the universities now often form cultural centres for the city or district. University buildings and services are utilized by a whole range of specialist groups who need a central and teaching accommodation. During the undergraduate vacations.

In the view of the committee, the long-term trend in this country will be for an increasing proportion of young people to seek higher education, with a comparable though more limited growth in demand coming from among mature students. It is also the committee's view that it will continue to be a central responsibility of the universities to fulfil the important national need of graduates by helping to meet the target single proportion of this demand.

Although for a period of some years the age of the 18-plus age group has remained constant, and university numbers moved gradually

upwards, we are now at the beginning of a seven-year period in which the number of 18-year-olds is expanding and it may unfortunately be the case, at least in the immediate future, that they will have to consider their future careers against high levels of unemployment.

It seems therefore that not only will there be a rise in demand for higher education from an increasing proportion of the age group, but that the numbers seeking admission will be greater because of the interest of those who, though adequately qualified for entry, would otherwise have thought first in terms of employment.

In our view it would be most unwise if, against this background, the universities were to be financed in such a way or on such a level that they were effectively precluded from making provision for these growing numbers so that it became proportionately more difficult to gain a university place.

It should be clearly understood that in stating the importance of entry and graduate output, the committee is in no way advocating or even accepting a diminution of universities' research role. Indeed it considers that it is largely because they have insisted upon maintaining an effective research capacity across the whole range of disciplines that the universities are in a position to serve the community generally.

As was recognized recently in the report of the House of Commons Select Committee on Science and Technology, there are already threats to universities' scientific research capacity and, at a time when research and development in industry is being cut back, it is even more important that the research role of universities is maintained. Universities would firmly resist any policy designed further to limit universities' capacity in this field, which effects expressly or implicitly through a shrinking of resources.

For more work of practical relevance is carried out in universities' research programmes than is generally realized. Many members of staff make their specialist knowledge available outside the universities as consultants or advisers. Many universities through their special industrial liaison arrangements, their extra-mural departments and through certain of their academic departments extend a great deal of help to the community at a local level.

"Universities occupy a central role in retraining at a time of great technical advance"

This willingness to meet the needs of the community in a practical and pragmatic way will be called on more and more, and it is right that it should. It is important that universities should increase their efforts to make known the ways in which they can offer help, and they will be glad to have more indications of local and national needs. As in institutions concerned with new knowledge and new advanced specialist skills, universities occupy a central role in retraining at a time when the process of technical advance makes continuous demands upon employees and managers.

The block grant system lies at the heart of universities' ability to perform their complex of roles. While it is undeniable that the large part of every university's annual grant is already claimed by medium or long-term commitments, the powers to adjust these in a planned manner and to deploy the remaining sums between different expenditure heads in the light of current circumstances, encourage the efficiency of resources and place the responsibility for such use where it belongs.

The complex of university institu-

tions are thus able to respond flexibly to indications of social demands and national needs and to accommodate them in a complementary relationship with the demands of scholarship. The maintenance of the system of block grants will continue to be an essential condition to universities doing so.

The level of finance within the block grant is, of course, such that the universities' commitment to standards which it would be foolish to damage and undermine is not destroyed. But they also have a commitment to good planning, efficient management, economic operation and the maintenance of educational opportunity. The overwhelming indications are that in the next year or two severe restraints will be applied to public expenditure and that the universities will be required to meet all their commitments will be strained accordingly.

In this situation the committee believes universities can make their own contribution to the short-term crisis. Under normal circumstances, the committee would urge the importance of making full provision for calculating universities' recurrent grants for all additional students likely to be accepted; indeed it emphasizes that this must be the case in the longer term. And it is clear, looking forward from the present, that any such calculations are not charged either the existing pattern of inescapable commitment or the fact that universities already effected non-replicable economies.

For the immediate period ahead, however, the committee is sure that the universities, if given realistic recurrent grants whose values are subsequently maintained in real terms, would do everything in their power to help to satisfy the numbers of potential entrants to an extent exceeding the proportionate real increase in their grants.

Against this background, the committee would look to the Government to do three things—none of them unreasonable, but together having decisive impact. The first is to promote a more efficient use of resources by establishing a system of university grants which departs from the ad hoc arrangements of the present, and immediate past, and which provides a planning framework and a real terms funding commitment extending beyond a year. The second is to give the firmest possible assurance to the universities that, at the end of this period, they will be able to resume their programmes of development with financial support at a level in keeping with their national and international standing and commensurate with the burden they have shouldered. And the third is to give a clear commitment to plan and to implement long-term planning and financial arrangements will be restored thereafter so that preparations—including consideration of the necessary capital programme—made in the intervening period can be made in the intervening period.

In the current period all university staff have had to accept restraint in wages and salaries. In the academic staff have not suffered over the last year and a half the effects of the requirements of the current incomes policy which they had thought would be effective from October 1.

The previous Secretary of State recognized in May that the report of the Houghton Committee had resulted in treatment for university teachers which he described as unjust. Recently, the present Secretary of State was able to say in the House of Commons that "when there is a different pay situation facing the nation, this is a matter to which we shall have to return". The committee is concerned to see that this admitted injustice is remedied at the earliest possible date.

University autonomy is vital in the areas where universities have freedom of decision, and their regard to the needs of the community at large. In the period of economic difficulty at large, universities, along with all other sectors, will be faced with the need to make some extremely difficult choices.

It is the committee's belief that, despite the pressure, the universities will succeed in maintaining their standards and at the same time will continue to fulfil their national roles and in particular to uphold the opportunity for university entry.

Honesty lies in the lens of the camera

Euan Duff discusses how photography can complement the research tools of social science

Although both photography and sociology are used to document human behaviour, photographers rarely comment on or try to analyse what they record. Sociologists, in contrast, try to relate their observations to identifiable patterns which they can use to make generalizations about society as a whole.

Photography is considered easy because "anyone can take photographs" whereas sociology requires lengthy study. In consequence photographers are often considered only as ignorant illustrators, but sociologists as academic theorists. Both disciplines are young and insecure, which might explain why many of their followers are so concerned about the problem of truth, apparently believing that if they can produce something which is true in some way, then it will also be more "worth while" (and hence easier to justify to others).

Some go further to suggest that photographs can be more than visually accurate records, and can almost magically recapture the past "as it actually was". This suggests that research can almost magically prevent misinterpretation of what is observed.

But as the photographer Cartier Bresson has said: "The only objectivity is to be honest in regard to yourself and your subject. Truth in itself doesn't exist: it's always a relationship."

This relationship has something to do with "art" in other words with the ability of a few truly exceptional people to transcend their experience into forms which we can recognize as containing some general truth about the human condition.

Such individuals are few and far between, and most of us have to become aware of the limitations of our own limited ways. It is therefore important that we learn how to co-operate with each other, in order to get as broad a viewpoint as possible.

Ever since the 1930s, photographers have been seduced by the high fees offered them to produce commercial—and therefore mainly trivial—work for magazines, and by the social status offered for producing meaningless "arty" photographs directly imitative of painting.

Sociologists have had different problems; reacting to the need to organize their findings into a coherent form, they have evolved and invented structures which sometimes seem to be considered more important than the information they contain.

Nevertheless, both disciplines also have a tradition of straight reporting: among writers Mayhew, Orwell, and recently Ronald Blythe with *Akenfield*, stand out.

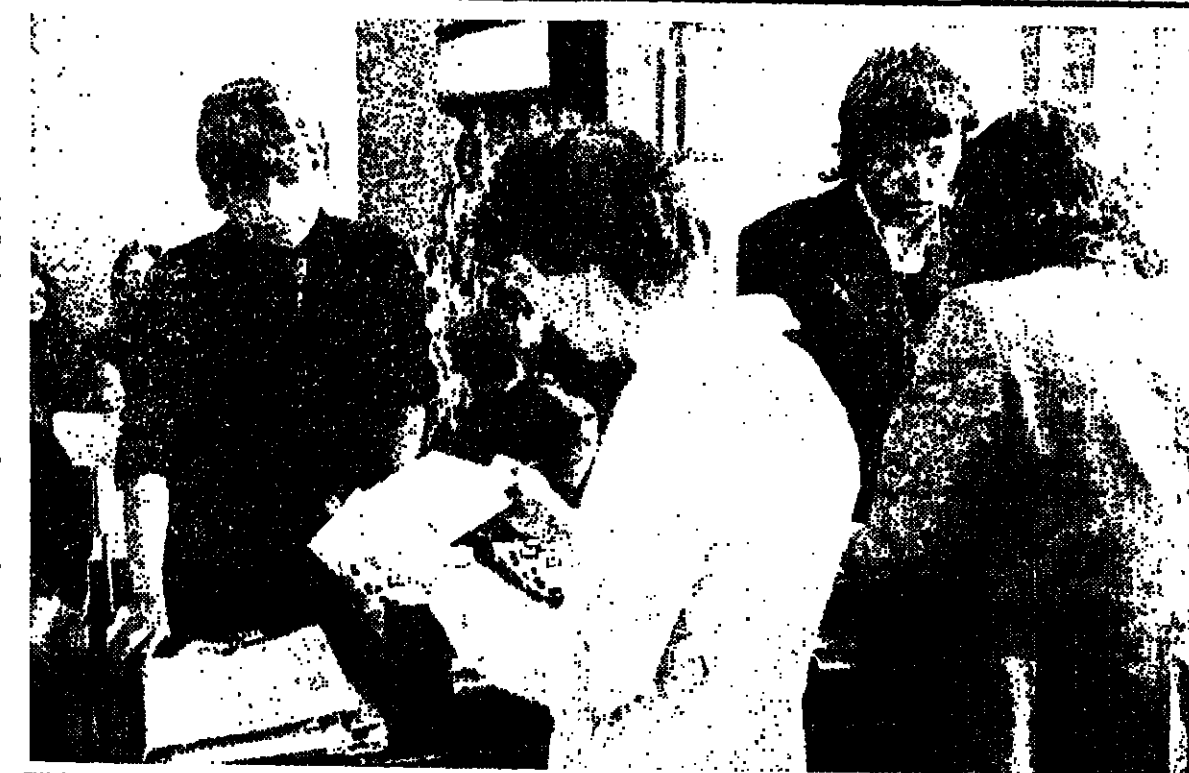
Similarly there are photographers such as John Thompson, who worked in London at about the same time as Mayhew, Jacob Rits, who worked in New York at the turn of the century, and Walker Evans, who worked with James Agee on the classic account of the lives of tenant farmers in the USA during the 1930s, *Let Us Now Praise Famous Men*.

These precedents prompted me to ask Dennis Marsden, a sociologist from Essex University, to cooperate on a project documenting the lives of unemployed men and their families for a book commissioned—and recently published under the title *Workless*—by Penguin.

We decided to meet possible subjects together, and then interview them separately. I therefore spent at least a full day photographing each family, and often returned to follow up particular events. Dennis Marsden interviewed the families at length with a view to producing a narrative returning for further information.

I produced chronological sequences of pictures of each family, while Dennis Marsden produced transcripts of his tapes. We then edited and organized the material into a comprehensible form for the book, not trying to reproduce the total situation of any one individual, but rather to compile their experiences into common groups.

The elements of the pictures were always considered as separate, complementary and co-equal. One allowed people to describe their own predicament, their history and present problems.



EUAN DUFF

The other showed something of the quality of their lives, how they got on with family and friends, and how they spent their time. It also showed their attitudes to different types of activity, both inside and outside their homes, and at one point contrasted with men in conventional work.

We tried to get at the general implications of the unemployment through the particular experience of a small number of people, selecting evidence partly on rational and partly on intuitive grounds, and structuring the book to suit this method of working.

We wanted to produce a document that would both communicate something about what we felt like to be unemployed, and could also influence policy thinking; in other words, we wanted it to be an imaginative but politically relevant account of a human predicament.

Some critics felt that the text was successful in these terms, but we were disappointed that so few people seemed to notice the photographs. These had to be small to enable the book to be cheap enough to get wide distribution—and were badly reproduced—but they were

edited and designed as an integral part of the book.

The result was a 48-page visual statement which was understood by many people, but which others have found difficult to take in, as the pictures are ambiguous without explanatory captions.

All the photographs show particular events. They have been presented in a form based on our understanding of these events, but designed to enable readers to interpret them for themselves, within the context of all the other information available in the book.

The photographs are not objective, they do not capture the "truth" or reveal the real reality, they are not intended to be, but only to show something of what I had seen—things which I considered important presented so as not to offend the way I felt about them.

This is all that most social researchers normally achieve: to mystify it with beliefs in magic, with esoteric jargon or stylistic devices can only distort how it is understood by others.

We are also liable to distort our own understanding of complex

human phenomena if we imagine that any one of the human sciences—in other words any one method of research or medium of communication—can adequately describe them on its own.

Yet it is too much to expect any one person to be expert in all the possible disciplines. It is enough for most of us to know about one discipline in sufficient depth to be of practical use, and it can be dangerously misleading to possess only a little knowledge about all disciplines.

Dennis Marsden and I chose to work together so that we could complement each other's abilities. Maybe the study would have been even more worthwhile if we had also worked with experts from other human sciences.

In commercial terms, this would be difficult to organize, but much of the relevant expertise is available in many of the large voluntary and students from different disciplines could work together, at least at postgraduate level.

The author is principal lecturer in photography at North East London Polytechnic.

The case for collective bargaining at the laboratory bench

An important question raised by recent policies on university research is whether it is good practice to base the main university research function on temporarily funded staff, who are effectively discouraged from permanent allocation to their subject.

Recent survey findings suggest that less than 13 per cent of research staff in universities have permanent posts, but that nearly 80 per cent of teaching staff enjoy tenure. Both research and teaching staff are increasingly on short-term appointments, often without salary compensation for the lack of security.

Where a customer-contractor relationship exists between a university and a research sponsor, the sponsor may attempt to reserve a right of veto over publications arising from a project. A research worker's freedom to publish may thus be jeopardized, although he may not have been a party to the original agreement between the university and the sponsor.

Research workers may write a paper which a director submits for publication; either under his own name as sole author, or as senior author. Research workers on short-term contracts may also be asked to contribute to a book or to a journal. Against this, it could be argued that a research worker develops ideas and competence through interaction with the director, who should consequently receive credit.

Academics who obtain research funds—and hence become research directors—are usually in tenured posts while full-time research workers are often on short-term contracts and have no job security and are often working off both in their terms of employment, and in their conditions of employment, and in their research credit, for research directors also experience difficulties at present: they

are the only members of a research team who may be held accountable to research sponsors for the way funds are spent. One director compared his role to that of an operatic producer, having to generate co-operation among prima donnas.

At the root of many conflicts within research teams are the different value perspectives from which the parties operate. Research directors may need to present a "low risk" image in order to attract research funds. Thereafter they feel under obligation to the sponsoring body.

Tensions within research teams can often be explained by their asymmetrical power structure. Different prior orientations between research workers and directors tend to lead them to different approaches to research, which may result in clashes between them.

Research workers often overtake the director in knowledge of the research specialty. Mature directors welcome advancement among research staff and seek to foster their development. This is a positive side of the research relationship.

Other research directors may feel threatened by the intellectual level of junior staff. Such research directors are able to deploy a number of sanctions against research workers, and information, contacts with publishers, and personal references necessary for continuity of employment.

Sanctions available, in theory at least, to research workers—such as withdrawal of cooperation—are in practice likely seriously to damage the research workers as much as the project. The research worker's ambiguity of status and his employment contract mean that he is unable to exercise authority over the project for which he may have responsibility.

In response to insecure working conditions, research workers may

to remove insecurity of research employment. The notion that research is necessarily an apprenticeship for teaching must also be rejected. There is some overlap between skills required for teaching and research, but it could be argued equally well that research is a form of apprenticeship for teaching, so teaching is useful training for research.

One unfortunate consequence of the current disparity in job security is that research workers may apply for teaching posts for no other reason than to seek tenure. Thus, teachers may be recruited who are not motivated to teach.

Permanent posts are essential if research career structures are to offer an alternative in teaching. Expenditure on research salaries need be no higher than under the existing system, and no employee should be required to waive statutory rights with respect to redundancy payments and unfair dismissal.

There is a shortage of well-qualified and experienced research workers in some fields, and evidence that fewer graduates are taking up research as a career, perhaps because of the lack of job security.

Research is at least as important as teaching in a university, and it is inconsistent to maintain inferior status, status and salaries for research workers, who are usually at least as well qualified as teaching staff.

Any staff who are unavoidably employed on short-term contracts should be adequately compensated by appropriate salary differentials. Within the context of a properly constituted career structure for all academic research and teaching

It is proposed, for example, that short fixed-term contracts should be phased out, and research funding should provide for permanent posts

Research workers should have freedom of publication and open communication of results and opinions; circumstances in which restrictions may apply should be expressed in writing in their employment contracts with provision for appeal. Furthermore, members of a university, even though he may hold a research grant, should be permitted to exercise absolute authority over other university employees who happen to be research workers.

We believe that formal collective bargaining procedures should be introduced. Considerable advances have been made in the development of collective bargaining in North American higher education. In Britain, research workers should be fully represented nationally and locally by a recognized trade union.

The scope of bargaining should include jointly-agreed grievance and appeal procedures, and provision for collective representation. If issues of salary determination were removed from the immediate work arena, this would tend to reduce friction between research workers and directors.

We have an ad hoc system of research funding by various public and private sector bodies is good for neither research directors, research workers, nor research itself.

Universities must accept their full responsibilities as employers, irrespective of the source of funds from which salaries are paid. We wish to present realistic ideas for change and hope that these proposals will be welcomed.

Ian Glendon is research fellow at Aston University. Greg Bamber was senior research officer at Heriot Watt University and is now a full-time trade union official. An extended version of this article will appear in the next issue of Higher Education Review.

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The Times Higher Education Supplement (London) Room 541
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Tel. 202 6386705

New York loses fight against savage cuts

The crisis-stricken City University of New York has been defeated in its battle to maintain free tuition throughout its vast network of colleges. Fees are to be imposed immediately at the same level as in the State University. At the same time control of the system is to be taken out of the hands of the city and given to the State of New York.

An emergency plan by the State Board of Regents, which was presented to the State last Thursday and is expected to be implemented immediately, says the city can no longer afford to finance the university.

It calls on the State to assume full responsibility. In return, the State would appoint the majority of the Governing Board of Higher Education.

The plan also merges a number of colleges; raises minimum admission standards; cuts out duplicated courses; and holds spending at its present level for the next four years.

To help the university overcome its immediate financial crisis—it has to cut \$55m from its budget this coming semester—the Board of Regents calls for tuition fees of up to \$300, with special provision for the needy, to be made from the beginning of the coming term.

The Regents say the State must make an immediate cash contribution of \$5m; all academic staff earning over \$12,700 are to give up one week's pay; a substantial contribution to the university should be made by the academic pension fund; heating must be shut off in all colleges during the winter and spring holidays; and

the university must cut \$6m from its academic programme.

In the long term, the State should substantially increase its proportion of the budget. The present State contribution of about 40 per cent should rise to 75 per cent by 1978.

This, the Regents say, would leave the city free to contribute 25 per cent for programmes unique to the university: remedial education courses, tuition waivers, student services and staff salaries which are higher than at the State University.

The university battled long and hard against tuition fees. But the Regents, in proposing fees, also called on the State to expand its tuition assistance. This would bring more State money into the university, and together with Federal student grants would more than offset the cost of tuition for students from low income families.

In this way, the Regents maintain, City University students from families earning less than \$14,000 will end up paying no more than the present student fee of \$100.

Taking control of the university away from the City of New York will be a bitter blow to civic pride. A special provision of the plan is that all members of the new board will have to be residents of the city of New York during their seven-year term.

Much of the Regents' plan is similar to proposals floated by Dr Robert Kibbee, the chancellor, for the past month. The recommendation that the staff be paid for a week is bound to be fiercely opposed, but on the whole the Regents' plan is the best the university could hope for.

Rutgers lays off 94 lecturers

Rutgers University, New Jersey, has laid off 94 lecturers and says that they are to be dismissed next year because of the huge deficit in the State's budget. Another 121 first-year staff will also be sacked if the State does not guarantee the university enough money.

According to university regulations, the teachers, who are on one-year contracts, have to be given seven months' notice of dismissal or else they are automatically re-engaged.

If the money is forthcoming, some of the notices may be withdrawn. Two years ago similar warnings were given, but the university was able to rehire many of the teachers.

New Jersey, one of the States spending least on education a head, is in deep financial difficulties. This year's budget deficit is estimated at \$600m.

Handicapped help

A six-month programme to train mentally retarded, though educable, individuals as dental assistants has been launched by the University of Pennsylvania's School of Dental Medicine.

Six women were selected as students with the cooperation of the Hyatt Institute, a well-known rehabilitation centre for the mentally retarded.

Stanford pulls funds out of Europe

Stanford University will abandon part of its overseas studies programme for undergraduates as 'Tourism in France' and at Berlin. Programmes for the summer of 1976 have been cancelled. They will

'Too old' don takes over at Chicago

A Chicago professor of psychology who refused an invitation to take over as President of Chicago University earlier this year because he thought he was too old has agreed after all to succeed. Mr Edward Levi, now United States Attorney General.

Professor John Wilson, aged 61, university provost and acting President, was named as President of Chicago University earlier this year because he thought he was too old has agreed after all to succeed. Mr Edward Levi, now United States Attorney General.

In Chicago's annual report last month, Professor Wilson said the university now had one of the strongest humanities departments in the country, he had led the decline in student numbers, increasing enrolment from under 7,500 in 1973 to over 8,000 today, and it would get out of its budget deficit next year.

Sociology link-up

From next month the department of sociology at Delaware University is to allow students to combine sociology with urban studies, social welfare, health services or education.

'Sociology will still be the core subject, but the department hopes to give students who have combined it with other options a job more easily at a time when there is a glut of sociology graduates on the market.'

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Catching the bright ones young

A group of students at Johns Hopkins University were recently visited by most 300 journalists, teachers and researchers and talk about their work, their relations with fellow students, their emotions, their parents' attitudes and their future—almost as if they were frecks. In a way they are: they are all brilliant.

Most of them started university at the age of 13, when their mathematical and intellectual abilities surpassed those of normal final year students.

Johns Hopkins was one of the first universities to attempt to identify and help the gifted. It is now the foremost centre in America for research in this field.

There are now about 20 students under 16 at Johns Hopkins, mainly mathematicians, brought there by a 'talent search' in the surrounding state of Maryland. They are following academically accelerated courses organised by a special unit at the university called the Study of Mathematically Precocious Youth.

This unit, directed by Dr Julian Stanley of the department of psychology, has been given grants from educational foundations to discover, describe and develop mathematical talent and to make the findings available for schools and universities elsewhere which want to start special courses for the gifted.

The whole programme is based on mathematics (though students admitted early at Johns Hopkins are also studying biology, political science, Russian and mathematically related subjects). This Dr Stanley explained, is because mathematical

Johns Hopkins University.

talent, like music, often develops early, the subject is self-contained and does not depend on experience of life and together with verbal reasoning it is a good indicator of overall intellectual ability.

In the Hopkins programme four and a half years of pre-calculus mathematics (about 600 school hours) are compressed into 100 hours of teaching. The aim is not to rewrite the textbooks but to move through them quickly.

All those who come to the university early do so voluntarily; the decision has to be the pupils' alone, and not that of an over-zealous parent. The unit communicates directly with the pupils, rather than through their schools or parents.

The key question always asked of the unit is whether such young

undergraduates are able to cope with the emotional and social life of university life. John Hopkins has found there have been no problems. Unless their age is paraded before them, fellow students do not notice.

The unit has found that when no longer in an atmosphere where nobody can compete with their knowledge, the pupils tend to lose the conceitedness that many were prone to. This adjusts them better to others, and increases emotional maturity. Nevertheless, the unit places great importance on counselling.

The first intake of early entrants is only now graduating, so there has been no follow-up study yet of the experiment. Most of the students will go on to research.

Two major reports offer limited hope for the hard-pressed private sector

College survival will depend on fitness

A quarter of all private colleges and universities in the United States may not survive, says a report on their financial health by the National Association of Independent Colleges and Universities.

The report, a major study by the Association of American Colleges, is the first in a series of yearly checks on a sector of education which pessimists have predicted will soon be driven out of business by inflation and falling applications.

The report revealed that no major college had gone bankrupt in the past five years and most were still solvent, though there had been sharp drops in non-academic staff, and that class sizes had gone up slightly. Salaries had slipped behind those of the public sector, and had not kept pace with inflation.

The report was based on replies from and analyses of 100 representative private institutions. They all agreed that what worried them most was falling student applications. They also agreed that the tax laws changed so that substantially more money flows to colleges in philanthropy and gifts.

The report by the Filer Commission, a massive inquiry into taxation and philanthropy, is now being considered by Congress and will form part of the increasingly determined effort by a number of Congressmen to overhaul America's immensely complicated tax laws.

The report says that private donors should be able to claim extra tax deductions for charitable contributions. At present, every taxpayer is allowed a standard deduction, whether or not he itemizes charitable contributions. Two-thirds of taxpayers do not bother to do this. The report recommends that these people be given a deduction for contributions they itemize.

Another recommendation would allow a 'double deduction'. If a taxpayer gave a college \$200, he could claim a deduction of \$400. This would give an incentive for many middle-class groups, often college graduates, to give higher education, and might generate \$11,000m at a cost to the Treasury of \$9,000m.

For charitable foundations, such as Ford and Carnegie, the report recommends reducing a 4 per cent tax which they now have to pay on their gifts.

This tax was meant to pay the cost of auditing the foundations' accounts, but it now brings in three

times the cost of the audits. The report recommends instead a simple fee to cover the audit cost.

This would substantially affect the 30 or so major foundations with assets of \$100m or more, allowing them to give more at no extra cost.

For the large corporations which give away about \$1,250m each year, Filer does not recommend any changes, but notes that much of their giving is often put in the category of advertising, whereas if it came under charitable contributions, the company could claim an allowance of up to 5 per cent. Presently they give away about \$1.2m, but this would rise to \$2.7m.

Corporation giving is vital to the arts and culture in the United States as well as to education. The Major League Baseball, for example, is supported by Texaco.

Other companies give resources to schools in the south, fully paid IBM. Insurance companies have money below market rates for social improvement.

Other than nearly 40 per cent of the money given to education, the amount is dropping sharply. The Filer report found the corporations' records 'unimpressive and inadequate'.

The Filer report cost \$2m to produce and heard evidence from colleges, universities and educational organizations. Congress is unlikely to act on it swiftly, though it can be expected to be mentally sympathetic.

World War II GI's (left) and in 1935 (at the depth of the Great Depression).

Only 15 accredited four-year colleges and universities in 1935, a mortality rate of about 0.5 per cent 'which is infinitesimal compared, for example, with mortality among small business firms'.

Comparisons in the educational field showed that of the 891 public colleges and universities founded between 1770 and 1870, 650 had disappeared by 1970; of the 290 private four-year institutions founded between 1947 and 1970, 55 had wound up by 1970.

World War II GI's (left) and in 1935 (at the depth of the Great Depression).

Sweden

Teacher training cutbacks hit colleges hard

from Mike Duckenfield

STOCKHOLM

Drastic cuts in the number of comprehensive and upper secondary school teacher training places are likely following a controversial report prepared by the Education Ministry and presented to Mrs Lena Rijn-Wallen, Schools Minister.

Suggested entry quotas, which would remain in force for eight years starting with the next academic year, would mean the number of places for potential class teachers—those teaching seven to 13-year-olds—would be more than halved and places for subject teachers—teaching 13 to 16-year-olds and secondary school pupils—would be reduced by slightly more than one-third.

In consequence, the training of class teachers would be phased out at six of Sweden's 15 colleges of education, and that of subject teachers restricted to the 'Big Six' colleges—three fewer than at present.

However, Mrs Rijn-Wallen has given a guarantee that all cuts will be more than compensated for by a massive expansion in training places for nursery school teachers and play school staff.

The ministry report follows increasing alarm about the over-production of class and subject teachers, a slowdown in the recruitment rate as the average age of teachers decreases, fears of unemployment and the Government's decision announced in Prime Minister Olof Palme's opening speech to the Riksdag to go ahead with a programme to create 100,000 new day-care places and 50,000 new after-school care places during the next five years.

First steps towards cutbacks were made last January in the Govern-

ment's annual budget for the year which began last July, and admission numbers have already dropped sharply. The Ministry report, however, takes things considerably further, not only by advocating more cuts and calling for rationalization of future provision in the college sector.

In phasing out class teacher training at six colleges and subject teacher training at three, the report fixes new minimum entry requirements to ensure students have a fair number of optional subjects.

This means that each college to run courses should have an annual intake of at least 24 students training to teach 7-10-year-olds; 48 to teach 10-13-year-olds and 60 to teach subjects. It is these requirements which have forced the phasing out of courses at the smaller colleges.

There has been strong criticism of the proposals from many of the colleges and teaching unions, and the Chancellor of the Swedish Universities, Mr Hans Lohvén, has described them as 'wholly unacceptable'.

In addition, the reduction in the number of colleges offering courses contradicts the aim of the UGR to give greater influence on course to the regions.

Comments from colleges, local authorities and trade unions are now being considered by the Government prior to taking their final position on quotas in January's budget.

To achieve the switch from comprehensive and secondary school teacher training to the nursery and play-school sector, the Government has asked Parliament for a special budget allocation of 6.2m Skr (700,000) for the remaining seven months of the financial year so that a start can be made in recruiting college instructors and lecturers.

Israel

Research unit breaks new ground

from our correspondent

JERUSALEM

The Hebrew University of Jerusalem has opened an Institute for Advanced Studies, the first of its kind in Israel.

The institute has no fixed curriculum, no permanent academic staff and it does not award degrees. Programmes are on a yearly basis. It planned to invite each year about a score of Fellows from Israel and abroad who will work in groups, each composed of eminent scholars of established reputation and younger scholars of outstanding promise.

In the present academic year, 18 Fellows are at work in three groups. One group, headed by Professor Gershon Scholem of Jerusalem, is working on Jewish philosophy and mysticism and a second, headed by Professor Saul Lieberman, of Jerusalem and New York, is working on Jewish history and institutions in Talmudic times.

The third group is in the field of mathematics. It is led by Professor Donald Ornstein of Stanford University, California, and is working on the Ergodic theory.

The programme for 1976/77 again envisages three groups: one in Talmudic research, one in mathematics and one in economics.

The director of the Institute is Professor Aryeh Dvoretzky, an eminent mathematician and President of the Israel Academy of Sciences and Humanities.

The British Rothschild Foundation, which has a fine record of support for pioneer projects in the field of education in Israel—instructional television, educational technology, Everyman's University—is backing the new venture.

South Africa

Non-Whites to get second medical school

from Louis Hotz

JOHANNESBURG

The decision of the Department of Bantu Education to establish the first medical school for Africans in the Transvaal homeland near Pretoria (225, November 14) has been followed by an announcement that a medical faculty is to be instituted at the Coloured University of the Western Cape, near Cape Town.

An academic hospital will be built on or near the campus and it is planned that other hospitals in the area will help to provide additional teaching and clinical facilities for the Coloured medical students.

Another educational development for Non-Whites is the formation in the Department of Bantu Education of a special section to plan, develop and coordinate adult education for Africans.

Commenting on this step, the Bantu Education Journal, mouthpiece of the Department, said that some 8,000 Africans were at present receiving adult education through night schools and correspondence colleges, but because of the conditions under which many lived and worked there were many failures.

Other voluntary agencies were assisting and it was not the intention of the Department to replace any of these but to supplement and coordinate efforts.

Scandinavia

One doctor per 150

If present training trends continue, as expected, the five Nordic countries, including Iceland, will have one doctor for every 250 of their population by the year 2000, according to the magazine Nordisk Medicin.

The increase is not expected to cause unemployment because of the need for more doctors for long-stay and industrial health welfare. Countries should reach the ratio of 100 doctors per 10,000 people within the next five years.

Spain

New man faces unrest from staff and students

from William Chislett

MADRID

Spain's new Education Minister, Señor Carlos Robles Figuer, appointed in last week's Cabinet reshuffle, has taken over at a difficult moment with increasing problems on all levels.

The new minister, aged 50, who replaces Señor Cruz Martínez Eateruela, has said that he will give priority to universities, but he has not specified in what way.

This is not surprising in the light of recent events. Students at most universities last week refused to take part in the elections for their representatives. Police have broken up pre-election meetings and debates.

Students say they do not want representatives to be elected and can have them fined or imprisoned for carrying out their duties.

Apart from student unrest the greatest higher education problem facing the minister is the possibility

of further strikes by contracted teachers, who are responsible for 85 per cent of all university teaching and are poorly paid. The yearly contracts should have been signed by the end of November, but not all have.

A delegation of 50 contracted teachers told the rector of Madrid's Complutense University last week that unless all contracts were signed within a month they would go on strike. They have been teaching since October and many have not been paid.

A spokesman for the contracted teachers said they were hoping the new minister would reform the whole university administration. In pre-election meetings and debates, professors will be contracted. At the moment professors and their assistants hold their positions for life and so receive a lifetime salary.

Contracted teachers want to eliminate the abuse whereby lifetime professors draw a large salary, hardly teach and leave most of their work to contracted teachers.

Turkey

Nine die in campus clashes

by David Barchard

In an effort to stem the violence currently raging in Turkey's universities, Mr Süleyman Demirel, Prime Minister, last week met 15 Prime Ministers from over seven hours. In the five weeks since the start of the Turkish academic year nine people have died and eight have been seriously injured in nationwide student clashes between right and left.

Mr Demirel must take some of the responsibility for this political polarization: his coalition Government, which includes neo-Fascists and Muslim Theocrats along with his own Conservative Justice Party, is held together by a self-proclaimed 'crusade against Marxism'.

At a meeting with Mr Demirel, the university rectors blamed the disturbances on extremists from both sides. They singled out by name the 'idealist clubs', among these responsible.

It was a pointed gesture for the clubs (whose members are known variously as the 'Grey Wolves' or the 'Commandos') are the youth wing of the neo-Fascist Nationalist Action Party, a member of the Coalition Government.

During Mr Demirel's last administration, the 'Grey Wolves', whose proclaimed task is to hunt out and destroy 'traitors to the Fatherland', were tacitly condoned by the authorities in the belief that they would check the growth of Marxism in the universities.

Students who cannot afford their own accommodation have to choose between staying in a hostel controlled by the 'Grey Wolves' or a leftist 'revolutionary' one. In either case they have to submit to intense politicization and strict discipline which includes the necessary precaution of keeping entry duty at night in case the other side attacks.

EEC

Ministers approve first action programme

from Paul Moorman

BRUSSELS

Measures to promote the free movement and mobility of academic staff, students and researchers were agreed here last week by the EEC Education Ministers.

The plans form part of a seven-point educational action programme, the first since the creation of the Community's education directorate-general in January, 1973.

Another key initiative agreed on was the setting up of a wide-ranging inquiry into education and youth unemployment in the Community.

On the other hand, EEC officials are delighted that the Commission has extended its traditional right of executive action to educational matters.

This, they insist, is far more important than the amount of money allotted to the first action programme.

It has been months of wrangling over the issue of competence which has frustrated attempts to draw up concrete initiatives.

The action programme stems directly from the Education Ministers' meeting in Luxembourg in June 1974 when a committee was created to draw up a list of priority action areas. It is this list which forms the basis of the programme.

Its main thrust is in the compulsory sector: top priority is being given to improving the education of the one and a half million children of migrant workers in the Community.

'The teaching of foreign languages and the setting up of education data banks for the Community are also earmarked for special attention.'

Measures, unspecified, are also promised to facilitate equal opportunity of access to all levels of education.

If higher education appears relatively neglected, this may well be due to the sector's insistence on itself as a 'special case'.

The resolution, indeed, goes on of its way to emphasize that 'the independence of higher education institutions will be respected', a point which is made nowhere else in the programme.

To promote mobility the Commission is to organize talks as soon as possible between the institutions 'on the question of developing a common policy on the admission of students from other member States'.

It is also to prepare a report to establish to what extent national schemes for scholarships, studentships and research and teaching fellowships could be extended to other Community countries.

One major problem to be tackled on mobility will be to ensure that pension rights of academics who choose to work for a period in another member State will be safeguarded.

A scheme to look again at the mutual recognition of degrees and diplomas was announced. Little more than a review of the current situation seems to be envisaged, though mention is made of the possibility of establishing a Community-wide network of agreements between institutions.

Brussels is now particularly anxious to avoid any hint of trying to impose a series of multi-lateral arrangements. Soundings among leading members of the European Rectors' Conference revealed that mutual recognition was a very low priority.

Most importance by the rectors was attached to study visits by academic staff.

Intensive action on every aspect of the programme will now be begun by the Commission, through the Education Committee. It is intended to report back on some areas of progress to the education ministers within the year.

Italy

'Freedom' rows halt faculties

from Patricia Clough

ROME

One leading Italian university faculty was paralysed last week and another threatened with closure because of disputes about academic freedom.

The Rome Catholic Medical School was hit by an indefinite strike of students and assistants in protest against the dismissal of a psychiatry professor because he was living with a woman who is not his wife.

The dismissal raised a chorus of protests and criticisms on the grounds that it was a violation of academic freedom.

Meanwhile, tension was running high in Rome's turbulent architecture faculty which the staff have threatened to close indefinitely if nine-month suspended jail sentences

passed on 11 of them are not reversed by an appeal court.

The court also ruled that the 11, who include many of Italy's leading designers and town-planners should be temporarily suspended from their jobs. The 11 immediately presented an appeal.

The 11 were charged by a conservative colleague of confounding decrees on four students after what was alleged to be an 'irregular' examination.

The allegation centred on a light-hearted exchange of jokes at the start of a joint oral examination intended, the defendants said, to put the students at their ease.

Fighting talk

The story of the story

Adrian Poole

Denis Donoghue

Polygenous faith

Robert E. Dowse

Eyes left

A lady of samurai rank defeats and restrains an armed intruder, demonstrating her prowess with both sword and spear. From *Martial Arts of the Orient*, published by Hamlyn at £3.50.

Houseworkers

Jean L'Esperance

The style is not the man

Lerner's book is clearly written to appeal to an intelligent, non-specialist reader, and not simply to an academic audience. There are already several excellent English biographies of Maupassant: this study can be recommended particularly for the attempt which it makes to "situate" the writer in his age.

Anthony Kells

In and of its time

R. Hinton Thomas

Middle class poor

F. P. Hennock

Chris Cook

17, rue de la Liberté. DIJON. FRANCE

BOOKS

Modelling spatial processes

Michael Merrett

فَكَرِهَ مِنَ اللَّهِ فَلْيُحَرِّمْ

Given limited resources for education, should we be pursuing excellence or equality of access and provision? The Open University represents a new attempt to solve this dilemma, at least in the field of adult higher education, by effectively claiming that no such dilemma exists. We can have excellence and equality.

The philosophy of the Open University is based, first, on the argument that there are many thousands of people, often early casualties of our elitist educational system, who are fully capable of degree-level education.

Secondly, by using a multi-media distance teaching system, such people can be educated to degree level in an extremely cost-effective manner. Finally, the OU argues that everyone is entitled to access to as much education as he or she desires.

Such beliefs are fine in theory but how do they work out in practice? The Open University is now in its fifth year of operation and we can begin to judge it by its results rather than its intentions. In this article we examine the extent to which the OU has achieved the three aims of equality of access, excellence and cost-effectiveness.

In a formal sense the OU is completely "open". No educational qualifications are required for entry and places are offered on a "first come, first served" basis.

However, it is not open in any real sense to a person who does not know the OU exists, or who thinks A levels are required. Nor is it truly open if the person is fully informed but considers the courses uninteresting, too difficult or too expensive.

For many people true openness would be achieved if the OU student population mirrored the adult population of Britain with regard to certain characteristics such as sex, occupation, terminal age of education, and so on.

Analysis of the relevant figures in the OU's early years shows that equality of representation was not achieved in the case of women. In 1971 women formed 52 per cent of the British adult population but only 43 per cent of those who had heard of the OU and 33 per cent of those who became students.

However, the inequality was much greater for those with a terminal age of education of 35 or under. People in this group formed 75 per cent of the population but only 54 per cent of those who had heard of the OU and a mere 14 per cent of provisionally registered students.

To get an idea of the working class group, we have also considered men in manual occupations and a similar pattern emerges. Men in manual occupations formed 64 per cent of all male workers, 35 per cent of those who had heard of the OU and 9 per cent of the provisionally registered students.

The OU has clearly not achieved true openness "at a stroke" and probably only the most naive idealist had expected it to. Before we go on to examine what progress has been made towards this goal, it is worth looking a little more closely at the apparently middle-class nature of the student population.

Middle-class?

In fact OU students only appear to be predominantly middle-class when the students' own present occupations are used to derive their social class. If we take their father's occupation at the time the students left school, as is done by the University Central Council for Admissions, for undergraduates entering conventional universities, then a very different picture emerges.

In 1971, 29 per cent of the students entering conventional universities had fathers in manual occupations whereas the corresponding figure for OU students was 52 per cent. Even allowing for the decline in manual occupations between 1951, the modal school leaving year for OU students, and 1971, the OU still shows a marked over-representation over conventional universities.

Given that awareness of the OU has increased across the board since 1971, what effect has this had on the profile of OU students?

In 1975 women constituted 42 per cent of the new intake as opposed to 26 per cent in 1971. There was a similar increase from 28 per cent to 43 per cent for those not possessing formal university entrance qualifications.

Telling all male students in work, manual workers formed 9 per cent of the new intake in 1972 and 14

A revised version of a paper given at the third international conference on higher education at Lancaster University.

Excellence for all at the OU, but some still find more equality than others

Naomi McIntosh and Alan Woodley claim the Open University does not acknowledge a dilemma between excellence and equality, but is in danger of becoming a revolving door that deposits disadvantaged students back on the pavement

The proportion of female workers in "clerical and service" occupations, the nearest equivalent to female working-class occupations, rose from 21 per cent to 30 per cent over the same period.

Once more progress has been made. However, members of certain social groups are still less likely to become OU students, given that they have heard of its existence. In trying to explain these differences we can draw on the results from a number of surveys.

One reason why people may not apply even though they have heard of the OU is that they may not have accurate knowledge of what the OU is and what it offers; studies have shown that those with a low terminal age of education and those from the working classes are much more likely to have incorrect knowledge about the OU.

Many people send for details about the OU but do not complete the application form. Responses to our surveys suggest that the "drop-out rate" at this stage is higher for women, manual workers and those with a low terminal age of education, and also that their reasons for not applying differ markedly from other groups.

Discrimination

In addition each year about a quarter of the places offered to OU applicants are turned down. As there can be a gap of anything up to 9 months between applying and being offered a place, one would expect a certain degree of non-acceptance due purely to changes in circumstances such as emigration, illness, death, and so on.

However, the overall rate of non-acceptance and differences between certain groups suggested that at this stage too there were barriers to openness. A study of those who turned down the offer of a place for 1974—currently being concluded—shows that those in manual, clerical and office, and sales and services work, and those not working, were much more likely to turn down the offer of a place, as were those with a low terminal age of education.

Thus although progress has been made, the OU still has a long way to go. At every stage from initially hearing of the OU to accepting the offer of a place, barriers exist which discriminate against particular types of people, many of whom have been deprived of educational opportunities in the past.

Most of these people are lost to the OU very early on. They do not even start their studies. An important task is to ensure that more people from the educationally deprived groups know about the opportunities which it offers.

However, awareness and accurate knowledge of the OU, whilst being essential, are not sufficient to attract applicants from such groups. Before they will apply, such people will have to feel that OU courses are interesting, worthwhile and, above all, within their capabilities.

Irrespective of the academic level of its courses, certain features of the OU's teaching system will continue to disadvantage prospective students from the educationally deprived groups.

For example, students taking each foundation course, and quite a number of later level courses, must attend a one-week summer school. For manual workers this will generally mean that they have to sacrifice one of their two or three weeks annual holiday.

A second reason is that to obtain an ordinary degree, six credits are needed, but some students are awarded up to three credit exemptions depending upon how much higher education they have already received.

The majority of manual workers, and all of those without experience of higher education, receive no credit exemptions. As most of these can only cope with studying for one credit each year this means that it will take them at least six years to obtain a degree, whereas many others may graduate in two or three years.

A further reason is that local authorities generally only pay the student's summer school fees. The expense of course tuition fees, set books, travelling to study centres and so on, must be met by the student.

With regard to the cost of the Open University, teaching degree students by Open University methods is cheaper than at conventional universities, but exactly how much cheaper is a complex question even for those students, compared to conventional universities, the average recurrent cost per graduate would be less at the Open University even with an 85 per cent drop-out rate. Another study showed that the variable cost per student-course was, in fact, 10 per cent lower in the Open University than elsewhere.

These encouraging verdicts need to be qualified in the light of certain developments. Two factors in particular may make the Open University cost-effective in future years. First, the throughput of students is declining, in other words students are now taking fewer credits per head per year. Less students are willing or able to fit in 20 hours or more of study necessary for two or three units with their normal working life.

As the Open University attracts more students with no experience of higher education and with physically demanding jobs, this trend is likely to continue. Therefore, in this respect at least, greater openness can lead to a decline in cost-effectiveness.

The second factor concerns individual courses. In moving towards its 1984 goal of 137 courses (equivalent to 87 full credits) the Open University is now producing a high level course, many of which inevitably have fewer students taking them in a given year.

It is estimated that in 1977 there will be 39 Open University courses running with less than 400 students on each. By providing a wider variety of courses, the Open University will be enabling its students to have wider choice, and in some areas to obtain a more specialized degree, but it will be reducing its own cost effectiveness.

Despite this, although many individual courses will not be cost-effective when judged in isolation, this overall degree will clearly remain so, and this is the most significant fact. It is worth noting also the additional unquantified financial benefit which arises from the increasing use of Open University materials by other institutions.

Any attempt to compare an Open University education with that of a conventional university and to judge the Open University in academic terms must begin by taking into account the fact that the Open University teaches at a distance, and the courses which it provides utilize a variety of teaching media. It is in the business of the provision of mass higher education, and it is using the mass media to aid it in its task.

This use of innovative forms in education, in particular, the media, is often associated with radical attempts to increase access. The recipients of these attempts are, however, educationally disadvantaged, but are denied to learn in new, untied and often difficult ways.

But the use of the media is also often associated with the attempt to save money. The mass media, of themselves, are not cheap—they are only cheap when used for large numbers. The Open University is therefore only cheap because it uses the mass media for large numbers.

The use of the mass-media inevitably means at some levels standardized content and a mass product. But the more students there are, the more difficult it is for standardized content to meet the individual differences and levels of need of all students.

Conventional universities with a relatively homogeneous intake of students of similar ages and abilities could theoretically manage with a mass product better than the OU. The OU has been criticized for reducing the educational experience received by its students through the combined use of independent learning and highly structured materials. However, although its basis is independent learning, there are a variety of other contexts including tutorials, counselling sessions, self-help group, summer schools and so on, which can and do enrich the OU learning experience.

An earlier study has shown that, compared to conventional universities, the average recurrent cost per graduate would be less at the Open University even with an 85 per cent drop-out rate. Another study showed that the variable cost per student-course was, in fact, 10 per cent lower in the Open University than elsewhere.

The OU does not offer the intense experience of three years of campus life, but for the majority of OU students such an experience would probably be inappropriate and unrealistic given their occupation and family commitments.

To the extent that the argument about the reduction of the educational experience is valid, one must ask how much it is inevitable. Independent learning is often confused with individualized learning. The OU has been set up for independent learning. Its content is individualized.

What can be individualized is the pattern of students' study; how they choose to use the wide variety of learning components available to them, how long they spend over their studies, over what period of time, what pattern of subjects they choose to build up to a degree.

Radical

Turning to course structure, many educational innovations have attempted to innovate in all things: access, content, methods and standards. Most of them have failed.

The OU, while being radical in access and methods, has not attempted to write everything anew. Quite a few of the courses are inter-faculty or inter-disciplinary in nature, but on the whole they do not represent a dramatic break with the conventional curriculum nor a change in standards.

There are good reasons for this, as Jennie Lee foresaw. Not only are the educationally disadvantaged the least able to cope with new methods, they are also the least able to afford low-grade or dubious credentials.

It has always been intended that the OU should offer general rather than specialist degrees. This was a realistic decision, for many years of courses would have had to be made if the majority of students were to be able to make up their own desired specialist degree.

It is difficult to measure how "good" OU courses are, but we can look for pointers in certain areas. Firstly, several institutions of higher education are admitting former OU students to their courses, frequently with advanced standing, on the basis of their OU credits; this has happened, for example, at the universities of Sussex, Lancaster, Bristol, Warwick and Durham Polytechnic.

Secondly, some institutions are beginning to use OU course materials for their own students.

The actual amount varies from individual course units to readers to complete courses; the University of Kent, for example, is using a whole third level Arts course.

Thirdly, the OU degree is increasingly being recognized by employers as a valid qualification. For example, the Secretary of State for Education and Science has recognised the OU degree as equivalent to those of other approved institutions for the purpose of teachers' salaries in England and Wales, while persons holding an OU degree are eligible for the police graduate entry scheme.

The nature of the OU's credit system creates many problems for researchers when they try to examine success rates. However, this is dealt with in detail elsewhere and here we content ourselves with a few overall statistics.

In the first year, new students provisionally register for foundation courses for what amounts to a trial period. If they decide to continue they pay the final registration fee. In 1974, about 75 per cent of the provisionally-registered students decided to become fully registered. Such students generally succeed within their first year studies—in 1974 some 80 per cent were awarded at least one credit at the end of the year.

Each year, about 75 per cent of the provisionally-registered students decide to become fully registered. Such students generally succeed within their first year studies—in 1974 some 80 per cent were awarded at least one credit at the end of the year.

In subsequent years of study, course success rates remain fairly high. In 1974 this stood at an average of about 70 per cent for all courses that year. Over half the students who finally registered in 1971 were still studying at the beginning of 1974, and the following intakes show a similar staying power.

Success rate

Turning to OU graduates, by the end of 1974, 9,559 graduates had been produced, and a third of the first intake had already obtained degrees. However, there was also a decline in throughput, with a decrease in the number of the 1972 intake graduating in two years.

In general then, the success rate of OU students seems fairly satisfactory. As far as one can make any comparisons, the figures are lower than for conventional full-time universities in the UK but not very different from some universities with open admission in the US.

They are, however, much higher than for other part-time correspondence courses. But, if the OU is aiming for excellence and equality then we must direct our attention to the performance of those in the educationally-deprived groups.

A study of the OU's first intake showed that women in fact fared better than men. However, those in the "lower" occupational groups and those with low educational qualifications, did less well than other students, as one might expect. The question now is whether or not the situation has improved in the subsequent years.

Taking the figures for the 1971 and the 1974 intake of OU students and controlling for course, then, 194 manual workers fared better in 1974. This was due to a real decline in their success rate, plus a slight increase in the success rate of "professional" workers.

Nor can this decline in performance be accounted for by the fall in educational qualifications among OU students. Those with low qualifications also fared relatively well in 1974 than in 1971. The decline was apparent for humanities, social science, and most markedly, mathematics; only in the case of science did the differentials remain the same.

These results suggest that although the OU is attracting relatively more students from manual occupations and with lower educational qualifications, they are not doing relatively well in their first year of study.

Their progress on future courses and the performance of subsequent intakes must obviously be carefully monitored to see whether this apparent trend is real.

Significant numbers of such people do succeed at the OU, but it is so difficult for them to do so. There appears to be a revolving door that deposits many disadvantaged students back on the pavement.

Naomi McIntosh is a research officer in the department of education at the Open University.

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Universities

ADELAIDE

THE UNIVERSITY

Applications are invited for the following appointments:
SENIOR TECHNOLOGY FELLOW (1st) The University of Adelaide, School of Engineering, is seeking a senior technology fellow to be responsible for the development and delivery of the school's technology courses. The successful candidate will be expected to contribute to the school's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the School of Engineering, University of Adelaide, Adelaide, South Australia 5001. Closing date: 15 January 1976.

IRELAND

THE QUEEN'S UNIVERSITY BELFAST

CHAIR OF SOCIOLOGY
The School of the Queen's University of Belfast invites applications for the Chair of Sociology. The holder of the Chair will be responsible for the development and delivery of the school's sociology courses. The successful candidate will be expected to contribute to the school's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the School of Sociology, Queen's University, Belfast, Northern Ireland. Closing date: 15 January 1976.

BRADFORD

THE UNIVERSITY

PRODUCTION MANAGER
The University of Bradford is seeking a production manager to be responsible for the development and delivery of the school's production courses. The successful candidate will be expected to contribute to the school's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the School of Production, University of Bradford, Bradford, West Yorkshire. Closing date: 15 January 1976.

CANADA

UNIVERSITY OF VICTORIA

The Department of Classics is seeking a professor of Latin. The successful candidate will be expected to contribute to the department's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Department of Classics, University of Victoria, Victoria, British Columbia. Closing date: 15 January 1976.

CARDIFF

UNIVERSITY COLLEGE

Applications are invited for the following appointments:
LECTURER IN PHYSICS
The University College, Cardiff, is seeking a lecturer in physics. The successful candidate will be expected to contribute to the college's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the Department of Physics, University College, Cardiff. Closing date: 15 January 1976.

CAMBRIDGE

CLARE COLLEGE

COLLEGE LECTURER IN LAW
Clare College, Cambridge, is seeking a college lecturer in law. The successful candidate will be expected to contribute to the college's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the Department of Law, Clare College, Cambridge. Closing date: 15 January 1976.

BRADFORD

THE UNIVERSITY

ADMINISTRATIVE ASSISTANT
The University of Bradford is seeking an administrative assistant to be responsible for the development and delivery of the school's administrative courses. The successful candidate will be expected to contribute to the school's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the School of Administration, University of Bradford, Bradford, West Yorkshire. Closing date: 15 January 1976.

CANADA

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UNIVERSITY OF VICTORIA

Applications are invited for the following appointments:
LECTURER IN HISTORY
The University of Victoria is seeking a lecturer in history. The successful candidate will be expected to contribute to the university's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Department of History, University of Victoria, Victoria, British Columbia. Closing date: 15 January 1976.

BRADFORD

THE UNIVERSITY

LECTURER IN SOCIAL PSYCHOLOGY
The University of Bradford is seeking a lecturer in social psychology. The successful candidate will be expected to contribute to the school's research and teaching activities. The salary is £8,000 per annum with contributions to superannuation and pension. Applications should be sent to the Director of the School of Social Psychology, University of Bradford, Bradford, West Yorkshire. Closing date: 15 January 1976.

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LETTERS TO THE EDITOR

British philosophy

from Mr David Wood
Sir—May I be allowed to correct the mistaken impression of the theoretical aims and content of my Continental philosophy course advertised by Frances Hill in her interesting survey of current trends in British philosophy (THESE December 12).

The course does not begin with Rousseau and Heidegger, as reported, but with Husserl and Heidegger. Husserl is not only important as the founder of phenomenology, but as one of the key influences on Sartre.

I am told by my colleagues that my other reported remarks on Sartre suggest that I favour dispensing with him in a historical, consumer-wrapped parcel, paying no attention to the traditions from which his thought arises. What I in fact said was that this was a temptation to be avoided. Reading Husserl is one of the ways to avoid it.

Yours sincerely,
DAVID WOOD
Department of philosophy,
University of Warwick.

from Mr J. E. Llewellyn
Sir—Frances Hill's article attributes to me the statements that at

Edinburgh University Continental philosophy has not been a Cinderella and that it has not been a "victim of its own interest". I would have represented my telephoned comment more accurately. Yours sincerely,
J. E. LLEWELLYN,
Senior lecturer,
Department of Philosophy,
University of Edinburgh.

from Miss Monika Reinfelder
Sir—Frances Hill's article was a useful but incomplete survey of recent developments in philosophy courses at higher institutions of learning. I should like to comment on one particular gap in the article—the lack of any reference to the City University.

The City University is, in fact, a prime example of a new university "lacking subject traditions and possessing a relatively high degree of curricular flexibility", and thus susceptible to the article's somewhat chauvinistic terms "alien thoughts".

For some years now, a first-year course on existentialism has been offered by Dr H. P. Rickman, while two final-year courses are also worthy of note: one on twentieth-century philosophy and the other on the history of ideas.

To say, therefore, as Dr Brosnan does, that the University of London "validated no less than 32 degrees in one swoop", is, in my opinion, a tendentious and unwarranted statement. The university's long-standing dialogue with the college makes nonsense of such a claim.

I note that Dr Brosnan does not define the CNA's "rigorous criteria"—though presumably the length of time taken in arriving at a decision is one. A validating body lacking close working contacts with the institution will need to develop some such links and this presumably takes time. Perhaps this is why the CNA's last survey in the form of bound volumes?

Many of us would prefer the evidence of suitability to be sought in our teaching and in the quality of the students who pass the course successfully. Perhaps the final comment on the different administrative style of the CNA should be sought in "Notes on Preparing a First Degree in the CNA System" published by North East London Polytechnic which states (page 89) "even under provocation members of staff must on no account engage in acrimonious exchanges with visitors".

Is this one of the "rigorous criteria" referred to above? If so, who judges when lively academic debate is "acrimonious"?

A final question—Is Dr Brosnan claiming that all polytechnic courses are directed to what he calls "societal wealth creation"? If so, how does he define "societal wealth"?

Yours faithfully,
EVELYN CARTER,
Principal,
Thomas Huxley College.

from Mr J. H. M. Elwell
Sir—Dr Brosnan overlooks two very important points.

Firstly, the college has had a long and close association with the university, through committees, covering all the subjects included in its programme, of which college and university tutors have been members, and through the part played by university tutors in the college's examinations, not only for the Certificate in Education but, for the past eight years, for the four-year BEd degree.

Long, therefore, before the university was asked to validate the new degree programmes, it knew well the quality of Stockwell's teaching staff and students, not about it but in the 11 subjects from which students have produced a substantial part of their programme.

The phrase "in one fell swoop" seems to disregard this knowledge and suggest, quite unfairly, that the university agreed to validation without sufficient evidence of the college's capacity to teach the degrees. The claim that these degrees "are certainly not up to CNAA par" is unjustified for the same reason.

Secondly, Dr Brosnan does not appear to realise that, of the 32 degrees he mentions, 24 are BEd degrees in which the same units in education are taken by students whose other main area of study can be chosen from a number of different subjects. The fact that each combination is listed as a separate degree conceals the amount of overlap in the programmes and makes it appear as if many more entirely separate degrees were validated than is actually the case.

Finally, though nobody would deny that "a function of higher education is related to the world of work", I cannot accept the sharp distinction that Dr Brosnan seems to draw between that function and that of providing "learning for its own sake". Is there not a relationship between the wealth that a society such as ours can produce and the quality of life of the individual called upon to produce that wealth?

It would be hard to define that relationship precisely, or generalise about it, but the two functions are mutually exclusive claims to me to be highly questionable.

Yours sincerely,
J. H. M. ELWELL,
Stockwell College of Education.

Comparing salaries

from Mr Arthur Tattersall
Sir—I am not deeply surprised that Professor Saville, personally, takes the line he does (THESE, November 28); but I am surprised that a professor of economic history (who may be presumed capable of doing sums and recognising a fact when it stares him in the face) can maintain that academics have not had a raw deal, by comparison with almost every other section of the community, over salaries in recent years, and that within the academic group professors have not been the worst treated.

All I said was that academics, and professors in particular, have fallen badly behind, and that they are unhappy about it. Maybe there is a deliberate attempt to change the relative valuation of various occupations. Maybe there is nothing wrong about this. And academics are not trying to "claw their way to the top". But experience shows that the need for restoring to philosophy the breadth of concern it should have.

Yours faithfully,
JONATHAN DOLLIMORE,
Bedford College, NW1,
M. J. BUTCHER,
Gray's Inn, WC1.

Quality is becoming a dirty word here; as I said, universities are made somehow to feel anti-social because they insist on high standards. Did Professor Saville try to tell the National Union of Mineworkers to refrain from "self-indulgent and disastrous squawking and squawking" when they were holding the country to ransom a year or two ago?

Yours faithfully,
ARTHUR TATTERSALL,
Secretary,
University College London.

from Mr R. Moss and others
Sir—We note once again that in any salary comparison between university professors and polytechnic heads of departments (THESE, December 12) the polytechnic grade is always quoted as Grade VI.

What proportion of heads of departments in polytechnics is on Grade VI?

Yours faithfully,
R. MOSS, C. BRIDGER, J. PEEL,
D. G. RUSH, S. SPEDDING, I. J. HODSON, C. A. G. WEBSTER,
W. M. JENKINS,
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